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THE METAPHYSIC OF EXPERIENCE

BY

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IN FOUR BOOKS.

VOL. I.

CONTAINING BOOK I.

GENERAL ANALYSIS OF EXPERIENCE.

LONGMANS, GREEN, AND CO.,
39, PATERNOSTER ROW, LONDON,
NEW YORK AND BOMBAY.
1898.

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London :
Printed by Wyman and Sons, Limited,
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PREFACE.

VERY little needs saying by way of preface to the present work. In the year 1880, my little volume, chiefly literary in character, *Outcast Essays and Verse Translations* (which was published in the following year) no longer claiming my undivided attention, I applied myself to a thoroughgoing review and re-examination of the philosophical field. I had already treated the subject in the three works named, together with *Outcast Essays*, on my title-page, as well as in various articles contributed to MIND and other periodicals. But I resolved to go over the entire subject again,— foundations, method, results,— and see what new facts I could bring to light, what new steps towards completing my system of philosophy I could take, what parts, if any, required to be modified, or perchance retracted, in that system as it stood in my *Philosophy of Reflection*, in 1878.

It also happened in the year 1880, that I was invited to become President of the ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY, then in process of formation. The discussions there carried on proved of the greatest value to me for the work I was engaged in, both by way of stimulus to my own thought, and by

showing me how the subject presented itself to other minds, what were the questions which spontaneously occurred to them, and what misconceptions (as it seemed to me) of the nature, purpose, and method of philosophy were the most prevalent. The fourteen Addresses, which I delivered in the fourteen years during which I had the honour of being President, were devoted to giving a clear view of the purpose, method, and relations of philosophy, as well as treating some of its more prominent topics. They form a sort of outline or program of the present work, which is, as it were, their fore-shadowed substance.

My re-examination issued, as perhaps was to be expected, in confirming my conviction of the soundness of those principles of method which had from the first appeared to me as of indisputable validity and cardinal importance. In this sense, the present work is but the continuation of those which I have mentioned as its predecessors. In my first philosophical work, *Time and Space, A Metaphysical Essay*, 1865, I virtually broke with Kantianism and its method of proceeding on the footing of apparently indisputable assumptions of matters of fact, and placed myself, instead thereof, on a strictly experiential basis, when I enquired what Time and Space (which are Kant's *a priori* forms of intuition) were positively known as, in immediate experience, without assigning to them a psychologically subjective origin, in or from the side of the Subject of consciousness, as part of the Subject's contribution to systematic knowledge. "Take," I said, "any empirical phenomenon, from the simplest to the most complex, isolate it from

others, treat it as an object of the first intention, and analyse it as such, without asking how it came to be what it is, or whence it derived its characteristics, or what other things it is like. It will be found that all its characteristics fall into two classes; some are material, or particular feelings, others are formal, or particular forms in which these feelings appear" (p. 45). The principle thus exemplified, of proceeding by analysis of experience, is the principle upon which all my works, including the present, have been written. At the same time I cannot but avow my belief, that, but for Kant's having singled out Time and Space, and given them special prominence as two, and the only two, necessary forms of intuition, that is, of perception, it would never have occurred to me to begin a philosophical enquiry by selecting for analysis experiences in which they could be treated as the only formal elements.

The Kantian philosophy, and those philosophies which have, as it were, sprung from its loins, never get beyond the psychological point of view, for they are based on the distinction between Subject and Object as an ultimate as well as an indisputable one, however different may be the ways in which the Subject may be conceived by them, and the relations in which it may be conceived to stand to its Object, including the extreme case of its having no other Object but itself. Hegel's Universe, for instance, is a vast self-conscious Concept (*Begriff*) eternally realising itself in thought, which is a thinking process; being also, in virtue of the activity involved in that process, a Mind or Spirit (*Geist*), which, by and as part of the same process,

evolves out of itself human minds, or active concepts, which thus have the same nature of self-conscious self-realisation on a minor scale. Hegel's philosophy (which he calls *Logic*) is really the Psychology of that vast self-conscious Mind, into which he imagines that he has resolved the Universe. Dr. William T. Harris, who is a devoted Hegelian, in his excellent little work *Hegel's Logic* (Griggs, Chicago, 1890), calls the philosophical movement inaugurated by Hegel "psychological ontology, or ontology based upon psychology and identical with Greek ontology in its general view of the world, but far superior in its method" (p. 44).

It was a truly unfortunate idea of Kant's that, with a view to a future secure and complete system of Metaphysic, it was advisable "to prepare the Field beforehand by a criticism of the Organ, the pure Reason itself." (Preface to second edition of the *K.d. R.V.*) It involved the assumption that there was such an organ as Pure Reason. A criticism of that assumption would have made a far better beginning. Yet, on the other hand, we can never be too thankful that so commanding a genius as Kant should have made it his chief and guiding aim, not as many persons suppose, to prove Metaphysic to be chimerical, by means of a critical Theory of Knowledge, but on the contrary to restore Metaphysic, by reforming it, to its pristine supremacy, as the sole science of foundations, or *grundlegende Wissenschaft*. That this was Kant's purpose is shown to demonstration by the Prefaces to both the editions of the *Kritik der Reinen Vernunft*, and by his own exposition in the *Prole-*

gomena of 1783, as well as by his own subsequently written treatises, on the principles laid down in the *K. d. R. V.*, in both divisions of Philosophy, the speculative and the practical. It is because this primary and guiding aim of Kant's is mine also, notwithstanding my radical divergence from his method of pursuing it, that I may venture to consider myself as continuing his work.

The great crucial and fundamental question which divides philosophers at the present day, and prevents the acceptance of any group of ideas or doctrines, however small, as a common and universally admitted basis, is a contest for the seat of Agency, Activity, or Energy in consciousness—the question whether agency belongs to and is exerted by consciousness, or by something which is not consciousness, though an object of it. This is not the same question as that which divides Idealists and Materialists. True, those who contend for consciousness being the exerter of agency are *ipso facto* Idealists; but not all are Materialists who contend for the exerter of agency being something which is not consciousness. Still, whenever experience is taken as the basis and test of philosophy, Matter is the only ground upon which the contention of the non-Idealistic school can be determined or brought to an issue, since Matter is the only positively known object which can be held to be at once non-consciousness and real. Hence the first great question to arise in an experiential Metaphysic is that of the independent existence of Matter, which must be established, if at all, by analysis of that which we call our knowledge of it.

This analysis, which is contained in Book I. of the present work, involves, by showing the necessity for, the substitution of the conception of *Real Condition* for the Aristotelic and Scholastic conception of *Cause;* a substitution which will be found to work a cardinal change in our whole manner of regarding the Universe, or whatever other name we may give to the total object-matter of philosophy. Hume's criticism had reduced the old conception of *Cause—i.e.*, something making something else to be—to a state so problematical as to require rehabilitating, from the Scholastic side, by the sheer assumption (Kant's idea of *criticism*) that it was what he called an *a priori* category of the Understanding, having a transcendental origin, and being necessarily unassailable by criticism (in the ordinary sense of the term), since there was no experience upon which criticism could be founded, which did not depend for its existence upon the truth of the conception.

What then, apart from assumptions of this kind, are we to understand by reasoning on the basis of experience? Assuredly not reasoning on the basis of the objects and events of ordinary or common-sense experience, such as Things and their properties, Persons and their functions, as if they were unanalysable and ultimate data of experience, instead of being complex percepts involving association and inference. That is Empiricism, even though the connection between things and their properties, or persons and their functions, generally, should be, to our habitual way of thinking, as indissoluble as we find it is in the particular cases of Matter and impenetrability, Persons and volitional activity;

which latter indissolubility is, I see, strongly insisted on by Professor Andrew Seth, in his last volume of Essays, "*Man's Place in the Cosmos*," pp. 95 to 128 *passim*, a work which happens to have come into my hands while writing the present Preface.

A simple feeling is an ultimate datum of experience, but the fact that a feeling, and *a fortiori* an action, is a function of a Subject, is of necessity a complex experience, resting on inferential processes, namely, those by which the idea of a Subject capable of exercising functions has been originally formed. The apparently immediate experience of a "subjective activity" or function is to be paralleled with the apparently immediate perception of a solid physical object, say a tree or a stone, which is now generally admitted to be a complex experience involving inference in the formation of the percept, though not in the act of perceiving taken in abstraction from the content perceived. To justify our treating either the one experience or the other as "an irreducible feature" (p. 101 of the work cited), the assumption of some *a priori* and transcendental conception, such as that of *cause* or of *action*, would be logically requisite. Hence Empiricism and Transcendentalism go hand in hand. I thank Professor Seth cordially, and am glad to take this opportunity of doing so, for the courteous and generous way in which he has previously, as well as in the Address I am now quoting, spoken of my views. It is always a pleasure as well as profit to read anything he writes. I only hope that what I have now said may not appear to him an ungrateful return for his courtesy.

Once more, then, to put the question, What is reasoning on the basis of experience? It is reasoning from experience in which all *a priori* assumptions, whatever their origin, transcendental or not, is avoided, and therefore that assumption among others, which makes the distinction between Subject and Object the ultimate distinction in philosophy, and puts it in the place of that between Consciousness and its Object, which, as will be shown, is a distinction perceived as inseparably involved in consciousness itself. All knowing is consciousness; but we do not know *a priori*, or to begin with, that all objects are consciousness also. Whether they all are so or not is among the things we want to know. Consciousness, therefore, as distinguished from its objects, is the thing to be interrogated. The fact, that consciousness is the only evidence of existence, does not imply that consciousness is the only existence of which we have evidence. Whether there is existence which is not consciousness, and if so, what the existents are which it includes, must be learnt, if at all, from consciousness, which is the only evidence of it or them. Now that there are such existents, and in some cases what they are, is proved, as I hope to show, by that experience which gives rise to the conception of real conditions possessing operative agency, these real conditions being known, in the first instance, as conditions of the occurrence of certain states of consciousness.

I may now, I think, leave the book to speak for itself. I shall not seek to recommend it by showing the desirability, or even the necessity, of having some metaphysical philosophy or other, and still

less by attempting to show the superior desirability of the conclusions which it reaches, compared to those reached or favoured by other systems. I am not writing as an advocate. The only really important questions are, first, whether the analyses given and the conclusions drawn in the three first Books, which are the analytical portion of the work, are as a fact true or false; secondly, whether the limitations of human intelligence, in its endeavour to form a positive conception of the Universe as a whole, which are the subject of the concluding Book, are truly or falsely depicted. These are the questions which I should wish to be present to the mind of those who may honour my pages with a perusal.

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End of Book I.

BOOK I.

GENERAL ANALYSIS OF EXPERIENCE.

CHAPTER I.

THE METAPHYSICAL METHOD.

§ 1. Philosophy based on subjective analysis of experience.

§ 1. The purpose of Philosophy I take to be this, to obtain a rational conception of the universe in which we live and act, and of our own relation to it as intelligent and active beings. This must of course be understood as a merely preliminary and provisional definition, sufficient to determine the end we have in view from the ground of ordinary or common-sense experience, which is the ground we occupy before we begin to philosophise, and which therefore furnishes, as it were, our departure platform.

In all ordinary or common-sense experience we distinguish our self from what we perceive, or think of as perceivable ; or more briefly stated, we distinguish the me from the not-me. Three terms are thus involved in ordinary experience as a whole, (1) the knowing self, (2) the world known, and (3) the knowledge which mediates between them. The knowledge is the mediating term, because it is our knowledge on the one hand, and knowledge of the world on the other, as the two latter appear, distinct from one another, in ordinary experience.

Now it is this mediating term, knowledge, understood of course in its widest sense, so as to include

§ 1. Philosophy based on subjective analysis of experience.

all awareness, feeling, consciousness, and experience, but at the same time contra-distinguished from the two other terms, self and world, which is the special field of philosophy. The existence of the self and the world, which is assumed in ordinary experience, and the relations which they bear or seem to bear to the knowledge, become known only in or by that knowledge, and appear therein as part of it. Our whole knowledge of the self and the world, even the knowledge that they exist, and that our knowledge itself comes from them and is a knowledge of them, belongs to the third or mediating term, knowledge; and philosophy is itself a mode of that knowledge which it explores. It may be true that, unless a self or a world, or both a self and a world, existed, the third term, knowledge, would be impossible and non-existent. But if so, still the reasons for holding it true, the grounds for making the assertion or entertaining the idea, must be found within knowledge, even if they should be found in the form of *a priori* or connate ideas in the self. The exploration of the third term, knowledge, taken in that which is at once its widest and its strictest sense,—widest in respect of its comprehensiveness, strictest in respect of its definition,—is therefore the special field of that branch of knowledge which has the widest scope, that is, philosophy.

Here must be noted one of the necessary ambiguities of philosophical language, the ambiguity which springs from the fact, that the only language at the disposal of philosophy is language which embodies and expresses the common-sense distinction of the me and the not-me, the self and the

world, spoken of at the outset. Philosophy has to use language assuming and expressing this distinction, even in describing facts which belong to the third term, knowledge, taken exclusively of those belonging to the first and second terms, and in explicit abstraction from them. We have to say *we* feel, *we* perceive, *we* think, *we* know, and so on, even in describing feelings, perceptions, thoughts, cognitions, which include no awareness of self, and yet are immediate experiences, and possibly experiences out of which the perceptions of self and world have been originally built up. It is obvious that such phrases as *we* feel, *we* perceive, and so on, bear a very different meaning, according as we take them to describe a self in its feelings and perceivings, or to describe feelings and perceivings alone, parts of the process-content of consciousness abstracting from a self. In the latter use, the word *we*, and other pronouns similarly employed, must be understood as simply subserving the designation of the phenomena described.

But it is not in language only that the ambiguity just signalised is met with. It is also met with in individual thought, and therefore also in discussion with others. We sometimes understand consciousness to mean a self with its consciousness, or consciousness limited by the sensitive and active powers of the self to which it belongs, and at other times to mean knowledge generally, the third or mediating term spoken of above, from which the self and the world are excluded, or, if included at all, are included only as particular objects or objective items among others. Taken in the former sense, consciousness is no legitimate basis

§ 1. Philosophy based on subjective analysis of experience.

for philosophy, since it includes an assumption, that of the self, which requires justification. Taken in the latter sense, consciousness is commensurate with Being, since it contains the general notion of Being, and any Being not contained in the general notion of Being is a contradiction, being unthinkable. It is in this latter sense that consciousness is taken by philosophy, and made its basis; and therefore, in philosophy, it is a primary truth of method, that consciousness and Being are commensurate in point of extent, neither being larger or smaller than the other; or in other words, that there is no consciousness which does not reveal Being, and no Being which is not revealed in consciousness, namely, as at least falling under the general notion, as even unrevealed Being does.[1]

When once this primary truth of method is clearly and distinctly apprehended, two consequences immediately disclose themselves, which are, in fact, a more explicit expression of what it contains. The first is, that, within the whole range covered by the term *Being*, two parts must be distinguished, and the limit between them ascertained, namely, Being of which we can, and Being of which we cannot, have positive and verifiable knowledge. The second is, that, were it only for ascertaining the limit between these two parts, it is necessary to interrogate consciousness, instead of interrogating Being directly, as if it were known to us before enquiry, in some other way than in consciousness. In fact, the possibility of interrogating, or of knowing, Being directly, or without the mediation of

[1] See on this point my little paper, *The Philosophical Pons*, in the Proceedings of the Aristotelian Society, Vol. II., No. 1, Part 2 (Jan. 25, 1892). Williams and Norgate.

consciousness, is a complete illusion, one which is perhaps the most deeply-seated source of empiricism.

Now it is the purpose of Philosophy, and has been from the earliest times, to arrive at knowing the nature and history of Being in its widest range, a range commensurate with the most general sense which can be put upon the term, and in that respect spoken of as the Universe, or Sum of Things; and at the same time to know it in its inmost essence, and in its utmost detail;—a purpose which (supposing the philosophy to be man's) is necessarily subject to the limitation, so far as such knowledge in either direction is attainable by human powers. And this being so, it plainly follows from the second of the two inferences stated above, that all philosophy is subjective in its method, as well as in its immediate object; is primarily an interrogation of consciousness by consciousness, as the only medium by which Being is known to us. The method of philosophy accordingly is to require evidence for all facts; evidence being the subjective presence or knowledge of fact. Assumptions of facts as *per se nota*, but without evidence, are disallowed in philosophy.

Another characteristic of philosophical method follows from the two just mentioned, of its being subjective and disallowing unwarranted assumptions. This third characteristic is, that its interrogation of consciousness proceeds by analysis of its content. To ask for evidence of a fact alleged to be *per se notum* is to ask what it is immediately known as; that is, to ask for its analysis, or the meaning of the term or terms which name it; facts which

are real, but at the same time ultimate or unanalysable, are themselves the meaning of the terms by which they are designated. All evidence must in the last resort be reduced to analysis. For all proof is either immediate or inferential, and, if the latter, must be based ultimately upon facts, the evidence of which is immediate.

Philosophy, therefore, bases its conclusions upon, and its method in the last resort consists of, subjective analysis of the content of consciousness. But the content of consciousness is the same thing as the content of experience. The moment of actually being conscious of anything is the moment of experiencing it. The term *experience* is primarily of subjective import, just like the term *evidence*. Both mean a content of consciousness which at one time or other has been immediately perceived, and which, if and when it is recalled in memory (so we designate the process in question) for the purpose of examination, is represented and recognised as having been so received. The sifting of such remembered contents, the comparison of their parts with respect to truth and falsity, and their re-arrangement into a consistent totality, into a new thought-structure, in lieu of former thought-structures which have had the same explanatory purpose, are the proper work of philosophy. In doing this it is by no means necessary to assume, that we have powers requisite for doing it. If we had not powers requisite for doing it, we should not be doing it at all. On the contrary, what those powers are, and what the term *powers* means, will be disclosed, if at all, by the results of the very work which they are engaged in doing. In thinking or remembering,

I no more assume that I have the power of thinking or remembering, than, in walking or in eating, I assume that I have the power of walking or of eating. What thought and memory are will be disclosed, if at all, by analysis of the experiences in which they are involved, experiences among which analyses of experience may themselves be included. It is, therefore, true that philosophy is built upon experience alone, unless it be by inadvertence or error in the application of its own principles. It is only too possible to misinterpret, it is wholly impossible to transcend, experience. Experience, evidence, and consciousness are three terms signifying the same thing in different relations—the subjective aspect of Being.

But Being and Consciousness are terms, as we have already seen, commensurate with each other in respect of their range of applicability. And Philosophy, as we have also seen, has the knowledge of Being, at once in its largest sense and in its minutest analysis, as its characteristic purpose or aim. To this I now add, that the knowledge of Being has, ever since the days of Aristotle, been called *Metaphysic*. The name, it is well known, was due to the merest accident, but the accident was a singularly happy one; in fact, the only Beyond—Μετά—to physical being is consciousness, and whatever else (if anything) may be known by inference from interrogating it. When, in comparatively modern times, philosophy became consciously subjective, analytic, and experiential, in its method, no change was wrought in its purpose or aim, which still continues to be what it has always been, the knowledge of Being in the largest

sense of the term, and in the minutest analysis of the thing signified by it. The only change wrought thereby was in the mode by which the knowledge of Being was pursued, namely, by way of subjective analysis of experience without assumptions, instead of by way of what were called First Principles—that is, the assumption of some conception or some hypothesis, supposed to be necessarily true or necessarily existent.

The terms *philosophy* and *metaphysic* are therefore co-incident in point of applicability; properly applied they are two names for the same pursuit. But the term *metaphysic* is by far the more distinctive of the two. The word suggests, by its contrast with *physics*, both the purpose and the method of the pursuit. It suggests thereby, that its problem is that of Being generally, in contrast with that of material being only. It suggests subjectivity, that is, perception and thought, as its mode of approaching phenomena, in contrast with the objective mode, by way of observation, hypothesis, and experiment, which assumes matter as something external to the percipient. And it suggests analysis of our knowledge into something else than atoms of knowledge again, in contrast with the physical hypothesis, that matter is ultimately composed of material atoms physically indecomposable. For the proper antithesis of Metaphysic is Empiric, which means taking unanalysed concretes as ultimate facts, and dealing with them on that basis. There can be no philosophy which is not metaphysical in the sense which I have now assigned to that term. The subjective analysis of experience is the true sense of the term

Metaphysic; and this, together with the conclusions which may be drawn from it, is Metaphysical Philosophy, and the only philosophy worthy of the name.

§ 1. Philosophy based on subjective analysis of experience.

§ 2. The co-incidence which I have just signalised between the general subjective tendency of modern philosophy and the principle of appealing solely to experience, which latter principle has always specially recommended itself to Englishmen, is a fact of great significance. The first distinct expression of the subjective tendency, its first decisive step towards taking possession of the whole of philosophy, is summed up in the *Cogito ergo sum* of Descartes. Practically contemporary with the philosophy of Descartes was the English Baconian philosophy, the first decisive effort towards founding philosophy on experience alone. The last great advance made by the subjective tendency was Kant's so-called philosophical Copernicanism, whereby he referred the explanation of the knowable Universe to the powers of the human Subject. To the transcendental hypothesis involved in this attempt the various Idealistic Systems and Theories of Knowledge, with which Germany has teemed during the century which has elapsed since the publication of Kant's *Critic of Pure Reason*, owe their origin. A combination of the two directions of thought, I mean the subjective tendency and the appeal to experience alone without hypothesis or assumption, is unhappily still a desideratum.

§ 2. All experience is subjective.

Now if we are seriously to make experience the basis of philosophy, and if, in consequence, our method is to be that of subjective analysis, it is evident that we must understand the terms

§ 2. All experience is subjective.

experience and *subjectivity* in a far stricter, and therefore also in a far ampler, sense than has hitherto been usual. In appealing to experience we must appeal to experience alone, without *a priori* assumptions of any kind; and in analysing experience we must analyse it as it is actually experienced, and in all the modes which it includes. If experience is in itself a synthetic agency, we must trust to analysis to bring that fact and that agency to light. It cannot be assumed to be so, prior to analysis; for the simple reason, that the idea of agency, the idea of an active power at all, is part of knowledge, and the object of that idea cannot otherwise be known to us than as an object of knowledge, that is, an object of one mode or one department of experience itself.

A philosophy founded on experience alone, and solely by means of subjective analysis of it, is very different from anything in the nature of philosophy which the world has yet seen. The difference between it and Kant's so-called Copernicanism, or between it and Hegel's Thought-Agency, or Schopenhauer's Will in Nature, is a difference which amounts to a revolution. And when I call philosophy of this kind Metaphysic, I am well aware that the meaning which I give to this latter term is very different from the meaning which is currently assigned to it. Metaphysic means, with me, subjective analysis of experience; its conclusions logically precede, and therefore criticise and govern, the conceptions and ideas which are the most fundamental and vitally regulative ones in all other departments of knowledge. This is so because all knowledge, the positive sciences included, is some-

§ 2. All experience is subjective.

thing subjective, is knowing distinguished from the things known, which belong to Being. This is saying in other words, that all branches of knowledge which take objects of particular kinds as their ultimate objects of enquiry, or ideas of particular kinds as their ultimate modes of dealing with such objects, are logically subject to that most comprehensive of all modes of knowledge, which has the formation of ideas of all kinds as its object-matter, without assuming any objects or any ideas as already known or given to begin with.

But what is commonly and traditionally understood by Metaphysic is very different, because the traditional point of view is the objective or empirical, not the subjective or analytic one. From that point of view, Being, instead of appearing as that which is known in knowing, appears as that which never can be known; that is, as the noumenal reality underlying a phenomenal manifestation, which latter is all that, from the nature of the case, is knowable. Knowledge thus appears as a system of feelings, perceptions, and ideas; and Being as something else, we know not what, except that it is wholly different from knowledge. And then, since all the knowable is dealt with by one or more of the particular sciences — physical, biological, or mental—or by some general science which considers the relations of the rest to each other, or which picks up, so to speak, the disregarded crumbs which may have fallen from their table—which general science is sometimes dignified with the title of Philosophy — the supposed noumenal and unknowable reality is left as the proper province of Metaphysic, which by its own

profession, it is said, has Being *qua* Being for its object. Metaphysic is thus identified, in the currently accepted opinion, with an absurd and impossible Ontology. It is not the place here to expose the fallacies involved in this current opinion. It is only incumbent on me to point out the difference between this view and my own—this which represents Metaphysic as the Science of the Unknowable, and my own, which understands by it the subjective analysis of experience.

It will be seen then, from what has now been said, that I regard this new Metaphysic, the Metaphysic of Experience, not only as a necessary step forwards in the subjective tendency of modern philosophy, but also as one which is revolutionary in point of magnitude, inasmuch as it completes that movement towards perfect subjectivity, which Kant and his successors attempted, but failed to complete. The key to its understanding lies in the new and more strict distinction which I draw between what is objective and what is subjective in knowledge—between what I call the objective and the subjective aspects of Being, or of Knowing; discovering this distinction within Knowing itself, and avoiding any initial assumption, importing either that Knowing is a Knower or Subject, or that it belongs to one, or that it is knowledge of any Being, distinct either from itself or from a Subject or Knower possessing or acquiring it. Within this all-embracing conception, and out of the content of experience analysed on the footing which it offers—the conception itself being also shown by analysis to have its root in an universal fact of experience—it will then be possible to show

what is meant by realities which are not consciousness, but exist independently of it, and also to justify the truth of this as a derivative conception. In fact this may be said to be the main burden of the present work.

§ 2. All experience is subjective.

I thus break, *ab initio*, though not now for the first time, with Kantian principles, and those of his disciples. The philosophers of the Kantian era continued, like their predecessors, to endow, by assumption, something purely subjective with the objective property of real agency, also assuming the idea of real agency as something *per se notum*. In my view on the other hand, this idea, as well as the distinction of subjective and objective aspects, must first of all be traced to its source in experience. I shall presently return to the grounds for making this change. But first I must make some few observations of a more general kind.

§ 3. Common-sense experience the *explicandum* of philosophical.

§ 3. There are many people who never philosophise at all. Those who do philosophise have begun to do so at some particular period of their lives, long subsequent to their birth. They wake to philosophy, so to speak. But they do not wake to it from unconsciousness. On the contrary, they wake to it from a state of mind in which they were awake only to the ordinary perceptions and thoughts of the world, visible and invisible, and of themselves as part of it, percipient of the various objects, persons and things, powers and forces, animate and inanimate, spiritual and physical, which fill or constitute it; which may be called the common-sense view of things in general. The steps by which this common-sense view was acquired have been forgotten long before we wake to

Common-sense experience the *explicandum* of philosophical.

philosophy. The period of its acquisition and undisputed sway may be called, in each of us, our pre-philosophic period. And the view which results from it is a mass of feelings, perceptions, and thoughts, welded together by assumptions and inferences, which, when once we wake to philosophy, and see them from the philosophic point of view, are prejudices, whether true or false, or partly both, and require sifting by philosophical analysis. This mass of feelings, perceptions, and thoughts is also, it is true, a form of experience, but it is that form of it which is the *explicandum*, the problem, of philosophy. It is our experience of Being, before we have put to ourselves the question, What is meant by the terms, Being, Self, and Experience? or, as we may also state it, What is meant by the being of Objects, the being of the Subject, and the being of the Knowledge which the latter has, both of objects and of itself?

It is plain that, if we should succeed in obtaining a complete, well-reasoned, and uncontradictory answer to the problem presented by common-sense experience, one mode of stating which has just been given, what we should obtain thereby would be another form of experience, capable of being put side by side and compared with that form of it which is our *explicandum*. It would be a system of ideas reproducing in a different shape, and in different relations *inter se*, the very same universe which we also have before us in common-sense experience. The former, which we may call philosophical experience, would explain, by being an analysed and organised reproduction of, the

latter, or common-sense experience; while this latter would serve as the test of the degree of truth attained by the former, inasmuch as every proposed *explicatio* must necessarily be compared with its *explicandum*, before being accepted as accurate or as sufficient. The essential difference between the two forms of experience is not, that one is a knowledge of Reality, while the other is a knowledge of Appearance; nor yet that one is a knowledge of the Absolute, while the other is a knowledge of the Relative. Indeed, if the Absolute had anything to do with the distinction in question, it is to common-sense experience, rather than to philosophical, that a knowledge of it should be reckoned, seeing that the *mirage* of absolute existence, wholly apart from knowledge, is a common-sense prejudice. The real difference is, that philosophical experience is the form which must be taken by the most exact, organised, and comprehensive system of knowledge of which the human mind is capable, after all possible doubts and questions have been raised and pondered, and in which, therefore, it must perforce acquiesce as its nearest possible approach to the whole truth; while common-sense experience is the form in which this same approach to truth appears, before that group of searching doubts and questions, which are the beginning of philosophy, has been brought within the ken of consciousness.

It must next be noted, that philosophy is not alone in explaining the world of common-sense experience by placing another form of experience side by side with it. Positive science also reproduces in a reasoned, exact, and systematic form,

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the phenomena of common sense, and sets this form, which is its scientific explanation of those phenomena, over against the common-sense experience of them, so as to be tested by them at the same time that it explains them. It re-arranges those phenomena in a different grouping, and discovers the laws or uniformities of nature, by which each several group is governed, and by which it is connected with the other groups. In this respect the procedure of positive science is the same as that of philosophy. Indeed, in the early stages of scientific and philosophical development, science and philosophy were not distinguished from each other. It may be said that Aristotle was the first to make manifest the fact, that there was some fundamental difference or other between them, in the papers to which I have already alluded, entitled Τὰ μετὰ τὰ φυσικά, coming as they did in addition to an encyclopædic treatment of most branches of science.

But the positive sciences have far outstripped that portion of the old undivided pursuit of knowledge, which retains the name of philosophy as distinguished from science. The truth is, that philosophy could not make systematic progress, however fruitful it might be, and was, in subtle reasoning and elaborate theorising, until its true method was discovered, I mean the method of analysing experience as a subjective phenomenon, discarding assumptions. This feature it is, which is the characteristic difference of philosophical method as opposed to scientific. Both alike set a new form of experience over against the common-sense form of it, but philosophy alone proceeds by

way of subjective analysis of what is actually experienced, as distinct from the scientific method by way of induction, hypothesis, prediction, and verification. And consequently the philosophical form of experience, attained thereby, is the only form in which a knowledge of Being, in contrast with an assumption of it as something *per se notum* (which, as remarked above, is also something wholly unknowable, though assumed as real), can find a place.

In respect, therefore, of adopting the subjective point of view and its consequences, philosophy stands to the scientific form of experience in the same contrast as it stands in to the common-sense form of it. For science and common sense are alike in taking the objective view of experience, as distinguished from the subjective. Science, it is true, is subjective as a knowing; and so also is common-sense experience. But this is not the same thing as taking the subjective view of it. By saying that science takes the objective view of experience is meant, that it takes objects to analyse and examine in their character of objectively given facts or data. They are its ultimates in that character. Common sense is Empiricism also. Science replaces the empiricism of common sense by exact and exactly demonstrated knowledge. The world of science is nothing more than the world of common sense reduced to measurement and referred to general laws of nature. From the objective point of view objects alone are visible. But from the subjective point of view, both objects and the knowledge of them are seen at once, distinguished from each other, but in mutual and

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inseparable relation. Thus the common-sense and the scientific forms of experience are alike transcended by the philosophic form of it, which, nevertheless, in no way transcends the limits of phenomenal and relative existence, which are, in fact, the limits of experience itself.

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§ 4. The logical primacy is thus assured to philosophy both over common sense and over science. I mean, it is assured by the fact just mentioned, that the subjective point of view is that from which both the subjective and the objective aspects of things, both Knowing and Being, are seen at once; and that this point of view is the one adopted by philosophy, and this double aspect made its special object matter. True, both common sense and science are in fact subjective, since they are forms of knowing; but they do not single out this fact for investigation, or trace it in its ramifications; they do not make the relation between what is subjective and what is objective, between knowing and being, the object of their pursuit. Hence it is that the sciences do not cover the whole field of Being. They take each some group of objective phenomena, the laws of which they endeavour to discover, so far as positive conceptions and possibly verifiable hypotheses will carry them. Modes of Being with which human sensibilities are not in direct correspondence, and which, therefore, are not positively conceivable by man, are beyond their purview. The distinction between the unknowable by human sensibilities and the simply unknowable does not exist for them. All beyond what is positively conceivable is for the sciences a blank, a region in which they

find no foothold, a region of non-existence for science.

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Yet this is a region which is not beyond Being simply, that is to say, Being in the largest sense of the term. From the subjective point of view we form some idea of it, and conceive it by analogy with what is positively conceivable, though not positively conceivable itself. Though unknowable by human sensibilities, it is not unknowable simply. It is in relation both to consciousness, and therein to other objects of consciousness. It is undeniable that material beings, to say nothing of immaterial, may in reality exist, which, owing either to the vastness or minuteness of their scale, or to the peculiar laws of their structure and functioning, may not only be wholly imperceptible, but also positively inconceivable by us. It is also undeniable, that real beings may exist, which in point of kind are such as to be out of relation to sensibilities of kinds like ours. Nor can it be said, that if it were so we should certainly be made aware of it indirectly, by the effects which would be wrought upon the world with which we stand in direct relations, and of which we are directly aware. For aught we positively know to the contrary, the whole visible universe may go into the button-hole of some Micromegas, and the whole history of its existence may begin and end, while he is quietly taking a single after-dinner nap. In that case what should we know of Micromegas, his coat, and its button-hole? To deny the reality of Being beyond the range of human sensibilities is no less absurd in one way, than to people what is beyond it with an imagined Micromegas is in another way. What

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we require is to ascertain the limit between what is positively knowable of Being within the range of human sensibilities, and what is positively knowable of Being simply, whether within that range or beyond it. Positive knowledge of what is within it is a special case of positive knowledge of Being simply. But this relation of the special to the general case can be seen only from a position which embraces both, that is to say, from the subjective point of view of philosophy.

My meaning will perhaps be best conveyed as follows. It is rarely that men of science deny the possibility of real existence beyond the range of human sensibilities, in denying, as they rightly do, the relation of such existence to science. They will often tell you that they can conceive the existence of a real world, quite different from anything within the range of human experience, and totally irrespective of any kind of human consciousness. Now in saying 'totally irrespective,' they are evidently making one great, but tacit reservation; they are abstracting from the fact of their own consciousness in conceiving the world they speak of, at the time they are conceiving it. To make their supposed statement literally true it would be requisite, that it should include their own consciousness at the time, not exclude it by tacit reservation. But including it would make their supposed statement impossible, since then they must be both conscious and not conscious of the world they speak of. Their statement, therefore, cannot be literally true. Either they must make their reservation explicit, which is holding to a palpable contradiction in terms, or they must retract it, and then

the world they speak of is not wholly irrespective of human consciousness.

The case stands thus. By them the world of which they intend to speak is conceived as wholly irrespective of human consciousness, but with the above reservation; by the metaphysician it is conceived as in relation to his consciousness, while he is thinking of it, which is the very thing from which they abstract, by means of their reservation. But since they are not aware of the reservation which they make, but make it tacitly and leave it latent in their thought, it follows, first, that the world which they then conceive they conceive as an absolute existent, not relative to consciousness, and secondly, that they are also unaware of the contradiction which this conception of it involves.

In reality this contradiction is inevitable and insuperable; from which it follows, that there is but one way in which we can, without contradiction, think of a world which in any true sense is irrespective of human consciousness; and that is by first making our present thought of it (which present thought is the object of their reservation) the basis of the whole conception, and then recognising that this thought is but the thought of an outline, the content of which we have no means of conceiving positively. If we are justified in speaking of the unknowable at all, it is not because we have no conception of it whatever, but because we have a conception of it as something which is unknowable in its positive features. Accordingly, a world not positively knowable may be spoken of, either as related to our thought while we are thinking of it, or as unrelated to any positive

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knowledge of its nature; and these two ways are practically the same. The one illogical course is to speak of such a world as wholly irrespective of human consciousness, but with the tacit reservation of the present moment of thinking of it; which shows that we have no distinct knowledge of what we are doing. This involves us at once in the contradictory conception of an absolute existence, not relative to consciousness, which is the penalty of our bad logic.

Observe too, that the consciousness from which the man of science abstracts, by his supposed tacit reservation, is the very consciousness which the metaphysician selects for examination, being consciousness in the moment of actual experience, consciousness which has, or may have, for its object, existence in its entirety, consciousness in the largest sense of the term, experience seen from the subjective point of view; in short, whatever may be the content of a present moment of consciousness. The difference is great. The moment of actual experience is that which the man of science abstracts from, and which the metaphysician keeps steadily in view.

It is, then, from this point of view alone that Being can be taken in the widest possible sense of the term, that is, as any object of any kind of Knowing. We must first look at Knowing before we can classify its objects, for these can only be distinguished by felt and known differences. It is philosophy, therefore, and not science, which includes Logic. What J. S. Mill called Inductive Logic is but a special kind of reasoning, a mode of investigation and discovery more properly to be

called scientific method than logic. Philosophy, in taking Being in the widest sense of the term, takes it in that sense in which it includes the two opposite determinations or limitations of itself, introduced by thought or logical knowing, which are termed Being and Not-Being. Thus, for a particular kind or determination of knowing, namely, logical thinking, there is a particular kind or determination of Being, namely, being as opposed to not-being, or not-being as opposed to being, both being determinations of Being in the widest sense, namely, Being as object of knowing or consciousness generally. To be conscious or to think of Not-Being, in a sense in which it should be commensurate with Being in the widest sense, is impossible; it would involve a consciousness without a content; that is to say, it would involve non-consciousness. To be conscious of absolutely nothing is to be unconscious.

How metaphysical philosophy deals with these distinctions will be seen later on. Here it is sufficient to note, that the simply unknowable is for metaphysical philosophy the simply non-existent, the object of both conceptions falling under the logical category of Not-Being, which has indeed existence for knowledge in the widest sense, but existence as a logical category only. A simply unknowable existent is a contradiction in terms. There is no being out of *all* relation to consciousness. There is no other being, no other existence, but that which has a subjective aspect. For *Being* and *Existence* are words which either have a meaning or have not. If they have not, they are

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empty sounds. If they have, that meaning must be part of consciousness.

Again, that which is merely unknowable by human sensibilities, or the merely positively inconceivable, is not on that account to be set down as non-existent or unknowable simply. The real existence of the object or objects thought of under those terms involves no contradiction merely on that ground, and may have strong inferential evidence in its favour. But, as I have already contended, this evidence (if any) can be seen only from the subjective point of view, by enquiring into the nature of knowledge, consciousness, or experience, which gives the nexus of one part of it with another, instead of directly into that of Being; that is to say, can be seen only in philosophy, and not in positive science, which assumes to begin with some kind or kinds of Being as already positively known, and refuses to travel beyond them.

I think it will now be clear, both that philosophy has a far wider range than the positive sciences, either singly or together, and also that the reason for this lies in the subjectivity of its point of view, and the method thereby dictated. The only science which may seem to rival or compete with it in this respect is the science of Psychology. A word or two must therefore be said on the relation of this science to philosophy. It is true that psychology embraces the whole range of human consciousness; but then it neither treats it from the subjective point of view, nor avoids assumptions in treating it. It treats the phenomena of consciousness on the same objective footing as the

objects of the other positive sciences, with some of which it endeavours to bring them into what are called causal relations. And it makes the assumption to begin with, that, placed in a real environment, there is a real Subject, or agent, upon which the phenomena of consciousness immediately depend; though in too many cases it makes this assumption without specifying whether the nature of this agent is to be conceived as material or immaterial.

Thus, while psychology on the one hand assumes the conceptions of agents and agency as previously known, on the other it makes the genesis and behaviour of the phenomena of consciousness, in dependence on or interaction with their Subject and its environment, its special object of enquiry. In reality it is the nature and capacities of the human Subject in relation with its environment, rather than the content of consciousness in relation to its object, Being in general, which psychology has in view. And this being so, it is obvious that psychology can tell us nothing about the nature of Being, taken simply as object of consciousness; but is restricted by its own assumptions and method to ascertain, at the most, what the laws of those processes are, by which human Subjects of a given nature, placed in a given environment, acquire and develop an experience of their given environment, and of their own given nature. The nature of Subjects and the nature of their environment are thus assumed as already known, and their relation to the nature of Being generally left unexamined. It is thus the point of view and the method adopted by itself, which limit the range of

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psychology in comparison with philosophy; a limitation which is indispensably requisite for its taking rank as a positive science.

Yet it must not be imagined for a moment, that philosophy requires the assumption, or speaks from the point of view, of any other kind of consciousness than the human. It makes no assumption on the point, but simply avoids making any till it has learnt from analysis of the content of experience, what is meant by human, and what by non-human consciousness. We must exercise consciousness before we can assume anything about it. That we ourselves are men, and that the consciousness which we analyse is human consciousness, are judgments of common sense, which are not to be assumed *a priori* by philosophy, but also not to be denied. The facts expressed by them are part of the *explicandum;* and, like all other concrete and determinate facts and objects, have to be found in and justified by the analysis of that experience by which the *explicandum* itself was originally acquired.

It is no necessary preliminary of philosophy, but on the contrary it would be, and has often been, a stumbling-block in its way, to settle beforehand who or what *we* are, who have the experience which in philosophy we analyse. It is enough that we have the experience and the capacity of analysing it. The universality or even, as it may turn out, the infinity of the range embraced by experience in no way requires the assumption of an universal or infinite Subject to perceive it. Knowing in its widest range, that range which is commensurate with Being, belongs, as we shall see

later on, to every single human individual, just as much as that positive knowing does, which we call our scientific knowledge of the visible and material world. The two ranges may be diagrammatically figured by two concentric circles, a larger and a smaller, one within the other; one and the same Subject being figured by the one centre common to both. Reflective perception, by which I perceive both the larger and the smaller circle, is centred in the same Subject as that face to face perception is, by which I perceive my bodily presence in the visible and material world, figured by the smaller circle. My idea of infinity is as much mine, as my perception of myself and my immediate surroundings. The finite self can perceive infinity without being itself infinite, as well as it can perceive the finite things which are definite portions of infinity.

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§ 5. The total unfitness of the psychological method, by way of assumption and hypothesis, for the purposes of philosophy, thus exhibited, leads me in the next place to state explicitly what is the main guiding principle of the metaphysical method, I mean the principle which, being implicitly involved in its abstaining from all assumptions, becomes the practically operative principle in applying it. It is this, that in analysing experience or any part of it, in the largest sense of the term, without assumptions, and from the subjective point of view, it is necessary in the first instance to abstract from the questions,— How experience itself in this largest sense is possible; What gives rise to it; What (if anything) it does; and Who or What "we" are, who in common-sense knowledge are known as the Subjects of it?

§ 5. Postponement of questions of Genesis and History.

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From these and similar questions we must abstract in the first instance, but merely as a preliminary measure, until the analysis of experiencing, simply as a process-content, is sufficiently advanced to give an ascertained meaning to the terms involved in them, I mean such terms as We, Self, Ego, Subject, Agent, Bearer of consciousness, Percipient, Agency, Cause, Effect, Condition, Giving rise to, and so on. Until their definitions can be given by analysis, all such terms, whenever they may be used in the analysis or in describing its phenomena, must be taken as designative only, used from the common-sense point of view, and as indications not definitions of the things spoken of. We must not assume to begin with, either that experience is dependent on a Subject, or that it is known to be from the first and necessarily *our* experience, or again that it is self-existent, or self-evolving. The simple fact, that, before any affirmation or denial is possible, there must be some content or *whatness*, in consciousness, concerning which an assertion can be made, necessarily involves and carries with it, when combined with the general principle of avoiding assumptions, the main guiding or operative principle of the metaphysical method now insisted on, namely, that of postponing questions of Genesis and History. For until we have analysed many different process-contents of consciousness simply as such, we have no accurate idea of what is meant by judging, asserting, affirming, or denying, or by the Genesis or History of such process-contents, both of which terms involve judgments concerning them.

Accordingly the whole body of questions relating to what may best be called the real conditioning

of states and processes of consciousness, questions relating as well to what (if anything) they condition, as to what (if anything) conditions them, will be found postponed, in the present work, to the analysis of the process-content of consciousness, or what is the same thing, of experience as it actually occurs. They are postponed until that point in the analysis has been reached, which discloses what is meant by such terms as real Subject, real Object, real Conditions and Conditionates. In other words, the whole subject of Psychology, the whole question of the genesis, history, evolution, and causal determination, of or in consciousness or experience, is to be postponed, until the analysis of what experience tells us of the nature of Being generally has reached a point of considerable complexity, and definite specification of content. What this point is, will be seen as we proceed with the analysis itself.

From this it follows, that the primary distinction of method, adopted by the metaphysical treatment of experience, is not that between Subject and Object, as in most if not all systems heretofore, including that continuation of Kant's mode of philosophising known as *Erkenntnisstheorie or Erkenntniss-Kriticismus*, Epistemology, or Theory of Knowledge, still prevalent in Germany. It is the distinction between consciousness apprehended simply as a process-content, on the one hand, and any other realities, be they what they may, which may be found to stand to that process-content in the relation either of real condition or real conditionate. Whether and in what sense there are such realities distinct from consciousness, or

whether consciousness itself stands in the relation of real condition to itself, as in Hegelianism, can be discovered only from an analysis of the process-content as actually experienced; which analysis is metaphysic. This subjective analysis, therefore, in true philosophical method, takes precedence of the study of consciousness in connection with whatever real agency may be involved in it, or presupposed by it, either as its Subject or as an Object or Objects which are its conditions or its conditionates; the study of consciousness in these relations being not metaphysic, but psychology, a study which is only at a later stage to be taken up and incorporated with metaphysical philosophy as a whole.

I am of course aware, that this comes very nearly to an inversion of the meanings and functions usually assigned to metaphysic and psychology respectively. Metaphysic is usually identified with ontology, the study of the real and possibly transcendental essence and agency supposed to underlie the phenomena of consciousness, as well as phenomena generally. And psychology is usually understood to investigate the phenomena of consciousness in connection with their phenomenal conditions and consequents, leaving their underlying realities (if any) to metaphysic or ontology. Both views are based upon the Aristotelian or Scholastic philosophy, still surviving in current and ordinary thought, and ever welcome to those who are either hostile or indifferent to philosophy as a living and progressive study.

But I have already given my reasons for rejecting this division of labour, as well as the

corresponding application of the terms expressing it. That division can be valid only from the objective point of view, never from the subjective; and then only on the prior admission of assumptions, which in philosophy are inadmissible. I will not repeat my argument on the question. But one remark I would add. It is, that the change which I endeavour to introduce is no idle or capricious change of nomenclature only; but the change of nomenclature is bound up with, and is essential to, the principal change which I am anxious to see effected in the division and organisation of knowledge as a whole, a change whereby philosophy, based upon subjective and analytic method, will finally take its proper rank, as the leading and dominant branch among all the departments of human knowledge.

CHAPTER II.

THE MOMENT OF EXPERIENCE.

§ 1. Empirical present moments.

§ 1. It results from what has been shown in the preceding Chapter, that the common-sense form of experience, whereby we seem to exist as Persons in a world of Persons and Things, Actions and Events, is the first problem or *explicandum* of philosophy. The process-content of experiencing, in this its common-sense form, is that with which we start, that with which we are familiar before we begin to philosophise, and consequently that which, in philosophy, we have to explain, in the first instance, by showing of what it consists, without asking by what means it is brought to be what we perceive it as, which would involve a recourse to hypothesis, and therefore to assumptions which, in this case, could be nothing more than parts of the *explicandum* over again, taken as if they could furnish an explanation, without themselves needing one. What we have to do, then, with experience in its common-sense form, in the first instance, is to resolve it into the ultimate elements, and the ultimate modes of combination of elements, out of which it is composed at the time when we are analysing it, or out of which those parts of it, if any, are composed, which we have to leave

unanalysed, but reserved for future analysis, at our first examination.

Now it is clear in the first place, that whatever we are actually experiencing is always the content of a present moment of experience, which may be called the empirical present, in order to distinguish it from an abstract mathematical moment of time, which, like a mathematical point of space, has in itself no content at all. We have no actual experience which is not included in the content of the empirical present moment, though we may infer from this content, that we have had such and such experiences actually in the past, or shall have such and such experiences actually in the future, or should or might actually have such and such experiences in such and such other imagined circumstances. The term *actual* expresses the reality of the present content, when and while it is present in consciousness. Memories, anticipations, imaginations, and inferences, have existence in actual experience only as part and parcel of an empirical present moment; though what we call their contents have had, will have, or may have, actual existence in past or future time, as the case may be. They have, as it were, one foot in the present, one elsewhere; and this double existence is just what is expressed by their names as phenomena of consciousness.

Not only, therefore, is an empirical present moment the only thing which it is possible to analyse as it actually occurs, but it is the only thing which ever exists as immediate experience of ours. When we say that experience consists of a succession of empirical present moments, we are

expressing an inference drawn from the content of the empirical moment actually present at the time of speaking. It is indeed an inference necessitated by the facts of that empirical present content, whatever they may be, but still an inference relating to what is no longer immediately present. We shall see before long, from the analysis of an empirical present, how the inference of a succession of such moments, that is, of empirical moments which have been but are no longer,—will be but are not yet,—actually present, is rooted in the experience of an empirical present, whatever may be its particular content. Indeed it is only from the analysis of an empirical present, that the meaning of the term *present*, as distinguished from past and future, can itself be ascertained.

But here the question occurs, Where or How are the limits of an empirical present moment to be drawn, or What are we to include in it? Taking this question to refer to limits actually found in experience, not to limits artificially drawn by ourselves for purposes of analysis, the answer is plainly this: It is any content of experience, simple or complex, from the moment of its rising into consciousness to the moment of its disappearance out of consciousness, including the periods (if any) of its gradual increase and gradual decrease in clearness or intensity. The fact that particular contents of consciousness appear and remain in consciousness for a certain time, and then disappear from it, is a fact of immediate observation or experience. Any content during that time of its remaining in consciousness belongs to what I have called an empirical present moment. Some

content the empirical present moment must always have, since otherwise it would not be a moment of experience at all. But inasmuch as different contents have different durations, and many different contents may be simultaneously present in consciousness, at least for some part of their durations, it follows that consciousness or experience does not occur in portions of uniform or fixed length of duration, but that it is left to the observer to say what is to be included in any empirical present moment, by reference to whatever content he may select for examination, among those which are actually present. The concrete content of consciousness consists of many different strains or features, not all beginning or ceasing together; so that, while we must always speak generally of the whole content, whatever it may be, as composing an empirical present moment, it is impossible to lay down any fixed duration applicable to the whole, as that in which its limits consist.

We may take it then, as established, that the content, or some selected part of the content, of an empirical present moment is necessarily that which we have to analyse. Moreover the fact so established necessarily implies, that the consciousness in which the analysing consists is itself a part of the same empirical present moment, of which it is an analysis, though distinguishable from that other part of it which it is directed to analyse. It has also been shown that the common-sense form of experience is that form of it which is our starting point in philosophy. Consequently it is with the analysis of an empirical present moment belonging

to the common-sense form of experience that we have to begin.

Suppose, then, in accordance with these conditions, that the experience I select to analyse is the process-content which fills my consciousness for, say, some two minutes, while I am in my usual sitting room, with my ordinary surroundings of sight and sound, mentally active and mechanically engaged, let us say, in sharpening the point of a pencil for writing. I have just read my letters, or the abstract of news in a morning paper; the table-cloth is laid for breakfast, coffee has just been brought in, and the room is already filled with its fragrance. Such is the group of circumstances which I take for analysis, say, while still engaged in sharpening my H.H. writing pencil. It is a group which presents itself to me in the form of common-sense experience, in the terms of which I have described it. How, then, does my analysis proceed?

It is plain that I must make a selection, and possibly more than one, before I come to a fact or feature which will yield me an analysis into parts which are no longer analysable separately. The first selection is determined by that guiding principle which has been set forth in the concluding Section of Chapter I. It consists in dismissing from present consideration, and reserving for future analysis, all those parts, or characters of parts, contained in the actually present experience, in which the ideas of genesis, history, and real conditioning, or more briefly of causality, are plainly so involved, that *what* those parts or characters are, is not perceivable without them. Everything

else I retain for present analysis ; that is, I retain the whole *minus* (1) the idea that what I am experiencing is a part of the world of persons, things, actions, and events, and *minus* (2) the idea that *I* as a real person am experiencing it or them ; these being all objects or characters which have no immediately evident significance, but require a further analysis showing their derivation from combinations of experiences, which have severally an immediate significance or character of their own.

If anyone should here urge the objection that I am wrong, at any rate in omitting the perception of Self, or the *I*, from the first *analysandum*, on the ground that, in all consciousness, we have an immediate and self-significant perception of it, it will be incumbent on him to say *what* that perception of it is, wherein its self-significance or immediate content consists. But this, I believe, it will be impossible for him to do, without bringing the ideas of reality and agency into that content, thereby destroying its immediate character, and so justifying the analytic method, by which it is reserved for a later examination.

I dismiss, then, in the first instance, from the total experience, the common-sense perceptions of a room, and of its furniture ; all ideas of the real origin of the colours, sounds, odours, tactual and other bodily sensations, pleasures and pains, immediately perceived ; all ideas of the real objects suggested by memory or imagination, or which are objects of emotional feelings, desires, thoughts, or volitions ; and also of myself as a real person. At the same time I retain the colours, sounds, odours, tactual or other bodily sensations, memories,

imaginations, emotional feelings, pleasures and pains, desires, thoughts, and volitions; but retain them only in the character of contents of experience, of highly varied kinds. And I retain them with a view to make another selection of some one or more from among them, to become forthwith the object-matter of a further analysis.

The common-sense experience which was our datum is by this preliminary analysis broken up into two parts, one of which takes its place as the object-matter of analysis; and this new experience, now selected, which has thus become our first *analysandum*, has no longer the common-sense form, though it is both an immediate experience, and a process-content in an empirical present moment, equally with the original datum. Our expectation in retaining it is, that its analysis, if properly performed, will yield us elements which will facilitate the analysis of that other part of the original experience, which has for the present been dismissed from consideration.

I would here call attention to the fact, that I have not been guided in my selection of parts for further analysis, which is itself a first step in the analysis of the common-sense experience with which we begin, by any psychological considerations. The parts retained for present analysis belong to the most varied psychological functions, sensation of various kinds, emotional feeling, desire, memory, imagination, thought, volition. I do not attempt to reconstruct in thought, or account for, the total common-sense experience which is our original datum, by referring it to the combined play of certain psychological functions, and the different

phenomena of consciousness which accompany their exercise. The common-sense experience or empirical present analysed is, as it were, a transverse section or segment, taken out of what may be figured as a stream of consciousness consisting of many various currents, or as a cable consisting of variously coloured strands, variously intertwined. But it has been treated as such a concrete process-content of consciousness simply, irrespective of the powers or functions of the Subject or agent, upon which its various phenomena severally, their various combinations, separations, and modifications of every kind, may in psychology be shown to depend. The very idea of a Subject or agent, in which, of course, that of function or faculty is included, is dismissed, and reserved for future analysis, by the guiding principle of the method now adopted.

Until, then, we have shown the composition of the perception or idea of a Subject or of a Self, as a real object, out of simpler and more immediately significant states or process-contents of consciousness, it is plain that it cannot appear in our analysis of experience. For, though it is found in the common-sense form of experience analysed, it is excluded, by our preliminary sifting of that datum, from the phenomena which thereby take its place as the immediate object-matter of analysis. Until this analysis has brought to light features which cannot but enter into its composition, so making its meaning evident, the idea of a percipient perceiving anything, or having experience or consciousness, will be absent from the terms in which that analysis is given. That is, the

analysis will specify only states or process-contents of consciousness, together with the inseparable elements of which they are composed, and the relations or combinations in which they stand, or into which they enter, with one another; and will, as an analysis, contain no statement that these or any of them, are perceived by a Subject.

Another point to be noticed is the following: Although we have seen that consciousness or experience, wherever we come upon it, that is, in any empirical present moment, has the form of a changing process, or stream of varied content, this must not be confused with the psychological idea, that consciousness as a whole is a continuous stream flowing on from the beginning to the end of an individual's conscious life, without gaps or breaks in its continuity; an idea which seems to give consciousness a kind of self-sufficiency and independence, and goes far beyond anything warranted by our immediate knowledge of it. The idea that an individual's consciousness, taken as a whole, is something which exists without *de facto* breaks in its continuity, is not an idea which has the support of experience in its favour. It cannot be established without the aid of inference, and *prima facie* that inference has adverse facts to contend with. For the consciousness, taken as a whole, of which we then speak, is an object of imagination and thought; and so taken it is apparently, at any rate, interrupted by frequent intervals of unconsciousness, as in dreamless sleep; and even the form of consciousness which we call dreaming, though it may be a continuation of consciousness taken simply as an existent, and so

may be a bridge, as it were, between its waking states, is yet an almost total break in its continuity, considered as a process-content possessing systematic and coherent meaning or significance.

That there is some real and permanent Subject or agent, some of whose functions, psychologically speaking, support and condition consciousness, is as a common-sense idea undeniable ; and the explanation of this will appear in its place, as our analysis proceeds. But this explanation cannot be given, nor can the substantial truth of the common-sense idea be vindicated, without having recourse ultimately to the analysis of present moments of consciousness, taken each for itself, without the assumption of the continuity of consciousness as an existent stream, from the beginning to the end of a Subject's conscious life. The continuity of consciousness in this sense cannot be taken as an ultimate and self-evident fact ; still less can it be used as a premiss, not itself requiring proof, in order to show, in combination with the supposed principle or law of causality, the actual existence of a psychological Subject, Agent, or Bearer of consciousness. Experience, alone, without assumptions, is the ultimate source of all our knowledge under this head.

I shall return, then, in the following Section, to the analysis of an empirical present moment of experience, at the point which has been reached in this Section. First, however, I must remark that the instance now examined, and every part of it which may be examined separately, may be considered as a representative case, standing for all empirical present moments of experience, or for

§ 1. Empirical present moments.

their parts ; just as a triangle drawn on paper stands as a representative for all possible triangles ; and with just the same right, seeing that no argument is, or will be, drawn from any feature which it contains, save from such as are common to all cases of experience universally, or to experience simply and solely as such. Nevertheless, with this proviso, that a plurality of several such experiences, and the possibility of their being included in the history of the experience of a single individual, be demonstrable from facts which may be focussed in a single present moment of that individual's consciousness. How this demonstration is itself possible will, it is hoped, appear in its place, as we proceed.

§ 2. Analysis of the content of a single sound.

§ 2. In proceeding with our analysis the first question is, What kind of constituent to begin with, of all those which the preliminary sifting of the whole empirical present moment has retained for analysis, and retained simply as process-contents of consciousness. In this character there were retained, as we have seen, sensations, emotions, pleasures, pains, desires, memories, imaginations, thoughts, volitions. Now inasmuch as most of these phenomena, taken, as we are restricted to take them, simply as belonging to the process-content of consciousness, present themselves in extremely vague and indefinite forms, upon which we may expect light to be thrown, if we first bring them into relation with other phenomena belonging to the same process-content, which, taken by themselves, are of a more definite character, it will be well to begin with something which possesses this character of definite self-significance in a compara-

tively high degree. We should therefore begin with something which is at once as simple and as definitely presentable as possible, while it is at the same time no abstraction, but an empirical part of the process-content of consciousness, and can be called an abstraction only in the sense, that it is artificially isolated by ourselves, here and now, for the purpose of analysis.

These conditions of simplicity and definite presentability or self-significance will, I think, be found best fulfilled by sensations belonging to what we call the special and external sense of hearing. That is to say, a sound is what we should select as the first phenomenon to be analysed, just as it occurs in the context of a present moment of common-sense experience, only that we agree to treat that context, for the purpose of our analysis, as consisting only of process-contents of consciousness, that is, to treat it in exactly the same way as we treat the selected sound itself. It is clear that the sound so treated is but a single portion of a single strand or current, in the whole content of the empirical present moment, and that its isolation from the rest, whether they are simultaneous, antecedent, or subsequent with respect to it, is artificial only. Moreover we shall have to do with it only as a single case or instance of the sound selected, abstracting from other instances of it, undistinguishable in point of kind, which have been heard before, which are called by the same general name, and with which, in experience of civilised adults, it is instantaneously and involuntarily classed. In thus treating it we bring it before us as an instance of what may be called a lowest empirical moment of consciousness.

Let me suppose, then, that I am seated writing in my study, and that some one in the room strikes the note C on a pianoforte behind me. The sound enters into the field of consciousness, and takes its place there as part of the content of my immediate experience. I now single out this part, my experience of the note C, by abstraction, from the rest of my experience at the time, and make it the object of analysis. Here I must beg the reader to put himself by imagination into the same circumstances, and test my analysis of the experience by an analysis of his own. It is an analysis, not an argument; and its proof lies in accuracy of observation, not in cogency of inference.

What is the note C experienced as? That is the first question. It is experienced as (1) a sound of a certain quality, (2) having a certain duration, (3) preceded and accompanied by other experience.

What is it *not* experienced as? This is the next question to be put, notwithstanding that the assertion already made carries with it the exclusion of any other members of analysis than those given. For this second question is rendered necessary by the fact, that the note C has been countless times a content in experience direct or indirect, and what we know about it from these numerically different sources has to be kept clear from what we know about it from one immediate experience only. It is, in fact, the close intertwining and commixture of the results of repeated experiences of what is called a single thing (results for the most part gathered up and expressed by the general term or terms used to describe it), which constitute the great difficulty of subjective analysis. This will be seen

when I begin to specify what does not belong to the experience of the note C in its greatest simplicity.

In the first place, then, though experienced as a sound of a certain quality, it is not experienced as similar to other sounds, nor mentally recognised as a sound, still less as being namcable or describable by the word *sound*. Nor, again, is it mentally recognised as a sensation; nor as a quality. These are terms which we subsequently, and therefore now, use to describe it, terms which we have learnt not from one simple instance like the one before us, but from countless instances in countless ways of occurrence, and from reasoning about them.

Similarly, though it is experienced as having a certain duration, the length of this duration as compared to other durations is not perceived in it; nor is it classed with things that have duration; nor is it referred to time as a general term at all.

And though preceded and accompanied by other experience, yet it is not mentally recognised as so describable. The meaning of the terms *precede* and *accompany* is not given fully grown in this one experience, which is but one of the countless data from which their meaning is derived.

It may also be advisable to remark, that the content of the preceding and accompanying experience is excluded from the experience of note C by our own present supposition, in taking our experience of note C as our *analysandum*. In reality this excluded content would be present in consciousness, though probably diminished in vividness by the striking of the note. Moreover, the precise quality of our consciousness of note C is

doubtless partly due to the preceding and accompanying context of sounds, from which it receives modifications, different from those which it would receive from other contexts. Or rather, to speak with greater strictness, it is partly due to modifications received, by the neural process which underlies it, from the neural processes which underlie the sounds which are its context. With its genesis, however, that is, with the conditions which make it heard as note C, we have not here to do. It is for psychology to deal with questions of this kind.

From the whole experience as it really occurs in nature, we select for analysis the part called note C, however that note may have been produced. But in doing so we must be careful not to falsify the experience of note C, by attributing to it the artificial isolation in which we place it for analysis. And therefore it is, that I include in the experience of note C the consciousness of its being preceded and accompanied, though not of its being followed, by other experiences, the content of which is excluded from note C itself. The fact that it is so is a part of our experience of note C, though the content belonging to the fact is thrown, by our analysis, into the exclusion of that experience. The fact of having a context is part of the experience, though not part of the content, of the note heard. It is as if, in isolating note C artificially, we severed the overlapping fibres of a cord.

But to return to other members of the exclusion. The experience of note C is not recognised, in the single and simple instance which we are analysing, as a case of experience. It is not from this

instance by itself, but from this with countless others, that our conception of experience is derived. Still less is it recognised as part of *our* experience. The Ego, or Subject, does not come forward in it, as a single instance, at all. Nor again is any sort of perception of the organism subserving it, whether ear, or nerve, or brain, included in the experience. Nor is the experience referred in any way to the external world as its source, or perceived as coming into consciousness from without, or from non-consciousness. It is not recognised as a note produced by a pianoforte. Many different and additional experiences would be requisite, before the mere hearing it could suggest the instrument producing it.

Nor again does it contain any sense of effort, strain, or tension, in the experience of it; still less any sense of effort for the purpose of hearing it more distinctly, or of comparing it with other sensations; which sense of effort for a purpose is called attention, and is probably the rudiment, or simplest case, of our experience of volition. No doubt the difference of note C from the concomitant experience is perceived; and moreover this difference may be so marked as to be straightway followed by attention. But in order to arrest, or rather set up, attention, it must first be perceived; it cannot arrest or set up attention first, and be perceived afterwards. The difference may indeed be so strongly marked as to render the interval between the perception and the attention aroused by it inappreciable by sense, and then the attention would seem simultaneous with the perception arousing it. But in that case the perception as a

whole would not be a perception in its lowest terms; it would be a complex perception, though the complexity would be due to a difference of degree or intensity only. In other words, the simplest experience of the kind now examined does not include any experience of volition. It is true that some re-action on the part of the Subject is requisite even to this simplest experience, without which re-action the note would not come to be perceived at all. But this re-action is not itself experienced at the time; no element in the perception of note C suggests or betrays its presence. It is below the threshold of consciousness, as it is called, lying somewhere among the real conditions, upon which consciousness is conceived by psychology as proximately depending. The experience which we are analysing bears its part in contributing to the formation of all the conceptions and experiences which have been enumerated, but not one of them is found as an element in any simple and single experience of note C.

But now I come to features of a different kind. I have enumerated sound of a certain quality as one of the three elements of analysis comprised in our experience of the note C. But this quality is not itself simple. It contains within it the three sub-elements of pitch, colour *(timbre)*, and degree of intensity. It is, I think, a doubtful point, whether at all, or if at all to what extent, these elements are discriminated in the simple and single perception of the sound. An acute ear might hear them, a dull ear might not; a practised ear might hear them, an unpractised not. Which is saying in other words, that in some instances

they would be perceived elements of the sound, and not in others. I prefer to suppose that they would not be discriminated on a single hearing, a supposition which does not deny their presence in the sound, but leaves them as undiscriminated components of its total quality.

It must be noted that these sub-elements (so to call them), being components of the sound as heard, stand on a very different footing from the other characters which I have asserted are not experienced in it. The latter being elements not belonging to the *analysandum*, can only be imported into it from without, and if imported would vitiate the analysis. Those which I have now mentioned, being at any rate within the *analysandum*, may be perceived by one person and not by another, or by the same person at one time and not at another, and thus, belonging merely to what is called "the personal equation," do not vitiate the analysis, but merely indicate the limit of its efficacy. For suppose the three sub-elements, pitch, colour, and intensity, were actually discriminated in the note C, the analysis which falsely excluded them would be simply insufficient and defective; it would not misrepresent the nature of the *analysandum*. But if we falsely supposed that the note C was at once recognised and classed as a sound, as well as being simply heard, we should be importing into the *analysandum* elements which, being foreign to it, would alter our conception of its real nature. It would, in fact, involve the supposition, that an *a priori* idea of sound, or at any rate of some sort of classification applicable to sensations, was a prior requisite to our hearing the sound at all.

Similarly with sense of effort. If this were imported as an element into the content of simple perceptions like that of note C, it would turn those contents into activities, and thus confuse the content perceived with the act or process of perceiving it, which latter sometimes contains a sense of effort, and sometimes not.

And if either of these things were done in any simple or typical case, like the present, our whole conception of the nature of the empirical units of experience would be vitally altered. The former error would be a defect attaching to our analysis only; either of the latter would be an error affecting our conception of the nature of the thing analysed. The importance of noting the difference in kind of these two errors, if errors they be, is therefore great.

I say *if errors they be*, because there is no final and admitted test of truth in subjective analysis. It is analysis itself which affords our ultimate criterion. The subjective empiricist in philosophy, who refuses to distinguish process from content, perceiving from percept, form from matter, separable from inseparable elements, mediate from immediate knowledge, and so on, cannot be either convicted or convinced by any process of argument, since there are no *posita atque concessa*, upon which an argument can be founded. There is merely one analysis against another. It is, therefore, only by the consistency or inconsistency of the results to which it leads, that the truth of one analysis, the falsity of another, can become, with general consent, admitted and established.

There is one other doubtful feature to be mentioned, belonging to the same head of doubtfulness

as pitch, colour, and intensity, which accordingly with these I have excluded from the *analysandum*. It is the perception of the direction in which the sound is heard as coming. In the case supposed, the note C is struck behind the supposed hearer. Is it heard as coming from behind? Or rather (since this way of statement might seem to involve a recognition similar to those we have already excluded) does the mere hearing of the note C contain any discriminated element which may, in subsequent experience, enter into definite association with the idea of specific locality or direction in space? I think it almost certain that it does, at any rate in a vast number of cases. It may possibly not, strictly speaking, be an element in the heard sound, but in the accompanying tactual vibration of the organ, felt rather than heard. In either case, it would be analogous to what Lotze called "local sign" in the content of sight. Genetically, no doubt, all our senses have been developed together, and in more or less intimate conjunction with one another, in dependence on the development of the organism. It would be natural, therefore, to suppose, that certain kinds of features in one sense should have acquired a constant connection with certain kinds of features in other senses, so as mutually to correspond to and suggest one another. With this history and development we are not now concerned. Preferring, however, that my analysis should err by defect rather than by excess, I provisionally exclude this element from it; meantime considering it as an element in the sound, which, at any rate, would not of itself suffice to originate the perception of

§ 2. Analysis of the content of a single sound.

space, and which, until we have acquired that perception from other experiences, remains undiscriminated in a musical note.

§ 3. Analysis of the process of hearing it.—How Memory is involved.

§ 3. So much may perhaps suffice respecting the content of the experience analysed. We have now to analyse this same experience as a process, or in other words, the *fact that* the experience takes place. Either way of taking it follows from the other, because, as we have seen, the content has duration, and is preceded and accompanied by other contents. Its experience is an event in time having duration. One and the same duration of time is an element in the content of the experience analysed, in the one way of taking it, and is the foundation of the other way of taking it, namely, as a process of experiencing. It is moreover that feature in the experience analysed, whereby it stands connected or in continuity with the excluded experience preceding and accompanying, and also, as will presently appear, following it. Without this continuity attaching to its duration, note C would be completely severed from the excluded experience by the difference of its sense-quality. Were it not for this, the isolation which we now have to introduce, artificially, for the purpose of analysis, would be found ready to our hand in experience, supposing (*per impossibile*) that experience could then exist. But, as it is, the process-content analysed is experienced as a distinct but unsevered portion of a larger process, which is partly simultaneous and partly antecedent. It is, as it were, the end-portion of a thread, in a rope consisting of many threads. But it is the end-portion, only until the sub-

sequent moment of consciousness appears above the threshold.

This last expression, which was also used in the preceding Section, requires a word or two of comment. The duration of the content experienced is the process of experiencing it, or rather is that which makes its actual presence in consciousness a process. The note C comes into consciousness, and for a time continues there. The coming of a state or process of consciousness into consciousness, *i.e.*, its beginning to exist as a state or process of consciousness at all, was picturesquely called by Herbart, its rising above, or crossing, the threshold (*Schwelle*) of consciousness; an expression which generalises the fact, that all particular and temporary states or processes of consciousness owe their genesis as such, at least in part, to something which at the time is not consciousness, but exists and operates in a region excluded from its then present limits.

The supposition of a reality which is not consciousness is thus introduced by the figurative expression, a *threshold* of consciousness, which is an image drawn from space, involving the ideas, (1) of a boundary between consciousness and non-consciousness, and, (2) that the appearing of consciousness above the boundary line is in some way due to something real in the region of non-consciousness below the boundary. We have, therefore, in this expression a suggestion of what will afterwards meet us as the idea of the real conditions of consciousness, the connection of which with consciousness as their conditionate, so far as they lie in the

Subject of the consciousness, is the object-matter of Psychology.

In this respect, what the expression suggests is true and valuable. But to speak of a state or process of consciousness appearing above the threshold of consciousness is misleading, if it causes us to imagine it as already a state of consciousness previously to appearing above it, as the sun is the sun, before as well as after its appearing above the horizon at sunrise. This, in the case of consciousness, would be self-contradictory. A state or process which is both consciousness and non-consciousness, as a supposed state of consciousness below the threshold of consciousness must be, is impossible. The term *consciousness* in its widest sense implicitly contains *above the threshold* as part of its own meaning. And the mere addition, *above the threshold*, does no more, of itself, than explicitly distinguish it from non-consciousness. But then such an addition would be superfluous and idle, unless it were intended to imply some reality in the region below the threshold.

If, however, we imagine a reality below that threshold, then we are *eo ipso* separating off some object or objects of consciousness (known by some experience long subsequent to such states as we are now examining), and opposing them to consciousness, and at the same time we are taking the term *consciousness* in a restricted sense, far narrower than that in which we have hitherto understood it. For the reality which we imagine below the threshold can only be some object or objects of consciousness, since otherwise we could not think

of it at all. To introduce the notion of a boundary of consciousness is therefore to restrict the universal sense of the term *consciousness*, and to oppose it to some one or more of its own objects in the character of non-consciousness.

Now note C is part of the process of consciousness above the threshold, from beginning to end, and is continuous with other parts of that same process, that is to say, with other states of consciousness, all of which (as we shall see reason to infer) come into consciousness, like itself, in dependence upon some real conditions. But with this mode of arising, or appearing above the threshold, we have at present nothing to do. Our experience of note C tells us nothing whatever of its real conditions, that is, whence or how it comes into consciousness. The process, of which it tells us that it is a part, is a process of consciousness, and like itself wholly above the threshold. It is we who have abstracted from the other parts of this process, for the purpose of analysis. We must not confuse the parts of consciousness, from which we purposely abstract, with parts of a process which is below the threshold of consciousness, and of which neither the part selected for analysis, nor its immediate context, in itself tells us anything.

This explanation is not unnecessary, because Herbart's whole system of pyschology is based upon the fiction, that every state of consciousness (*Vorstellung* is his word) has a double existence, one as consciousness, the other as unconsciousness, one above, the other below, the threshold of consciousness, which from time to time it crosses and re-crosses, owing to its actions and re-actions

with other states of consciousness, above and below the threshold. The truth of the matter is this. Any particular or given process of consciousness, taken in the narrower sense spoken of above, is in fact, as we shall see later on, connected with two processes, one the process of consciousness said to be above the threshold, with which it either is continuous or may be brought into continuity, and the other the process of its proximate real conditions, consisting of some neural or other action in the Subject, which is not consciousness, and of which it is a dependent concomitant. There are, as we shall see, good reasons for inferring, that there are some real conditions for every given particular state or process of consciousness; but I shall be surprised if we meet with any facts to warrant the hypothesis, that a *Vorstellung* continues to operate as a real condition, when it has ceased to exist as a *Vorstellung*. Herbart's theory is professedly based on the *a priori* postulate of Simple Substances, and their *Selbsterhatlungen*, or acts of self-maintenance. But now to return to our analysis.

The experience of note C, analysed in this way as a process of experiencing, tells us no more of the content of the experience, than its analysis as content told us. It merely takes the same facts in a different way. None of the conceptions or experiences excluded by the former analysis are brought in by the present one. We simply take the whole experience as a process in which the two elements, sense-quality and duration, are perceived as distinct but inseparable elements throughout the whole process, the character of its being a

process being due to the element of duration. I have been accustomed to call the sense-quality the material element, and the duration or time-quality the formal element, of the whole experience. But of course the reason for giving them these names cannot be seen from the analysis of a single instance.

Another thing which is in reality involved in the experience as an empirical process is Retention, or Memory in its lowest terms, the word *memory* having thus a somewhat different signification from its ordinary one, in which it designates recall or re-appearance of something which has been forgotten, and in which I have used it hitherto. Now retention, or memory in its lowest terms, is a character which certainly cannot be said to be discriminated, or perceived as such, in the experience, though it is actually involved in the perceived element of duration. This will be conceded, if we adopt the mathematical way of dividing time by instants which have no duration, and then consider the present moment as beginning at such an instant. For then an empirical moment which has appreciable duration, as the note C has, and which we call an empirical present, must be conceived as going into the past and ceasing to exist as present, at the very same mathematical instant at which it comes into existence by appearing above the threshold of consciousness. To realise this we may perhaps use the illustration of a measuring tape, wound upon a reel which is enclosed in a case, from which it can be drawn out through a slit in the case. In drawing out the tape through the slit, the part drawn out will

represent consciousness, the slit the threshold; and the reel with the tape upon it, not yet drawn out, will stand for the real conditions of consciousness below the threshold. And any part of the tape which represents consciousness above the threshold is a part which has already crossed the threshold, by having been drawn out through the slit. If we so regard empirical experience, the whole of it exists in memory only; unless indeed it be in imagination, that is to say, as a product of memory projected by imagination into future time. With this, however, we have not now to do. Our immediate business is the metaphysical analysis of empirical experience, not the mathematical. It is implied in the term *empirical*, as applied to any portion of experience, that this portion has some time-duration; and from this it follows, that the least possible empirical present moment is one, in which perception and memory (in the sense of simple retention) are undistinguishable from each other.

The result of our analysis, then, is as follows: Our experience of note C, taken as a process, is a perceiving and a perceived (or percept) in one, a content perceived and the perceiving it, or the fact that it is perceived, that is, makes part of consciousness for a certain length of time. Calling the content the *whatness* of the perception or experience, we may call the fact that it is perceived its *thatness* or existence as at present known. Neither of these two parts of the total experience exists apart from the other; they are distinguishable, inseparable, and commensurate. Yet neither is the *object* of the other. The existence of the

content perceived is not the object of the content, for the content alone is not a perceiving. And again the quality or content of the perceiving is not its object, but is the nature of the perceiving itself, the nature by which alone it is definable. That the perceiving is not the object of the content, is almost too obvious to be remarked. The *whatness* and the *thatness* are thus best characterised as opposite *aspects* of each other and of the experience, yet without taking the experience as a third thing, or anything but their inseparable union. It is the most general truth about experience which we thus see exemplified in the case we have examined: The meaning of *esse* is *percipi*. Simple being or existence in its lowest terms is known as the *thatness* of a *whatness*.[1] This is at once the indispensable *minimum* of positive meaning which the term conveys, and also the meaning which marks out its *maximum* of extension, or applicability, as a general term.

Yet, though opposite, these two aspects are not seen, in any single and simple case taken alone, in any other character than as combined in one specific process-content of consciousness. That is to say, in that simplest experience they are not discriminated, still less recognised, or classed as aspects. We call them aspects of the experience considered as a process, just as we called its elements of analysis elements, when considered as a content. Experience in its simplest form, and in the simplest possible instance of it, is both process and content; and it should be expressly noted,

[1] For this use of *thatness* and *whatness* see *The Philosophy of Reflection* (1878). Index, under *Questions* and *Whatness*.

§ 3. Analysis of the process of hearing it.—How Memory is involved.

that, according to the analysis here given, duration is common to both aspects of it, common to it both as process and as content; the duration element in every content being that which adds its aspect as a process to its aspect as a content. The impression which such an instance makes is real and positive, of a real and positive kind, and in real and positive limits. It is a real contributory to the formation and accumulation of the full meaning of these words. It does not wait to be perceived, until their meaning has been learnt. Without the contributories, or contributory perceptions, of which it is one, this meaning would never be learnt at all.

Again, if not classed and recognised as aspects, still less can they be recognised as objective and subjective aspects. We have seen already, that they are not objects of each other. I now add, that they are not objective and subjective aspects of each other. It is true, they are the indispensable experiential basis and foundation of this conception. But in a single and simple experience, such as that we have examined, the distinction between subjective and objective aspects has nothing answering to it; each aspect is distinguishable from the other, but there is nothing to mark them as respectively subjective and objective. Each has equal claims to both titles, since each is commensurate with the whole experience. It is an instance of experience in its lowest terms which we have been analysing, and the whole of it is alike what we afterwards call subjective, and also what we afterwards call objective and real.

§ 4. Having thus completed the analysis of the simple instance of experience which was selected for examination, let us in the next place analyse one which is slightly more complicated. Let us suppose the former experience continued by hearing note D immediately after C. The analysis of our experience of note D taken alone would be closely similar to that of note C, so that we need not undertake it. Note C followed by note D is the experience which we are now concerned with. Note D appears above the threshold of consciousness, but without excluding note C. That is, we no longer isolate a single note from its context for the purpose of analysis, but a sequence of two notes. The experience which we exclude from this new content is that which precedes and accompanies the sequence CD. What is new in this experience is (1) the perception of a specific difference between C and D, and (2) the perception of the sequence of D on C.

But what is meant by sequence? Of course we cannot suppose that the sequence of D on C is recognised and classed as a sequence. For it is one of the contributories subserving the formation of that conception, one of the sources from which its whole meaning is originally derived. It means that, of the two empirical moments which now make up the larger empirical moment C D, the former, C, was present alone for a certain duration, and then underwent a change as soon as D appeared above the threshold of consciousness, upon which it lost much of its vividness, and took its place among more dimly

retained moments of consciousness. We always, in real life, speak from the latest portion of the actually present moment of consciousness, and the whole content of experience, whatever it may be at the time, is judged from that point of view. D is now this latest portion. It is the continuation of the experience C into what, if we could have spoken of it from the C point of view, must have been called the unexperienced future. But C was not perceived originally as continuous with a following experience, because there was no following experience then to be perceived at all. The percipient of C (supposing there was one) at the time of perceiving it could not have anticipated an experience to follow it, unless he had, at the least, been endowed with an *a priori* idea of Time.

It may perhaps be objected, that, in this account of what is meant by sequence, I have not really defined it, but have assumed it as known in describing it. For instance, it is assumed in the words "*as soon as* D appeared," and in many others. This is partly true. It is true that I have not defined it *per genus et differentiam*, but have merely described it as an experience. And for the following reasons. In the first place, Time has no *genus* higher than itself, or not involving time. It is an ultimate fact in all consciousness. In the same way, Feeling, which furnishes the whole content of time, has no higher *genus*, not involving feeling. Time and feeling are ultimate elements in all consciousness and all experience; and as such are incapable of strict definition. The lowest conceivable empirical moment of experience contains both time and feeling, and the lowest

empirical moment in experience as it actually comes to us contains both sequence in time and difference in feeling. Sequence and simultaneity are facts as little capable of strict definition as are facts of difference and sameness. They are perceivable and ultimate facts of actual experience. Subjective analysis everywhere results in bringing facts of this kind to light. Consequently, while it is true that I have not defined sequence, but have taken it as known, it is not true that I have taken it by way of assumption, without the warrant of facts. For I have pointed out the actually experienced and undeniable facts which are the meaning of the term.

We see, then, that time and feeling together are experience. They are elements of experience in inseparable relation with each other; and this is at once the simplest and most general of all the facts of experience, upon which the general conception of Relation is founded. Now Sequence is a relation; that is to say, it may be referred to Relation as its highest *genus*, so soon as the general conception of Relation has been formed. Similarly time and feeling may be referred to the general conception of *Elements*, when once that general conception has been formed from experiences into which they have entered. And there is no fact or phenomenon which may not be brought under many general conceptions, in virtue of different features observable in it. It would, therefore, have answered no purpose to define sequence by referring it to its *genus*, relation; but in present circumstances would have been a case of defining *obscurum per obscurius*. What we want to know at the present stage is, not

§ 4. Analysis of the sequence of two sounds.

what sequence is conceptually or logically, but what it is in perception and experience. The passing off logical definitions as final explanations of the true nature of anything is a fallacy familiar to the sophists of every age, a fallacy favoured by the ambiguity of the term *knowledge*. It is thus that the conception of Being has been made to do duty for the experience of Being, and the purely logical distinction between Being and Not-Being, with the logical consequences which flow from that way of considering them, held to be a discovery of the real Laws of Nature. Looked at as it is actually experienced, sequence is one of the two ultimate ways in which time-contents are arranged in time; the other being simultaneity or co-existence. I preferred, therefore, to give a perceptual description of it. But to return to our analysis.

In consequence of real conditions which lie below the threshold of consciousness (a statement based upon facts still to be examined, and therefore one which I employ only by way of making the meaning of my analysis clear), states of consciousness appear above the threshold, and from the instant of arising recede into the past, since their contents have duration, and the ever-arising new content is that portion of the whole which is nearest in time to the ever advancing present instant, which is the instant of origin of every successively arising empirical portion or content. To say that successive present instants of origin of states of consciousness advance into the future, and to say that those states on and after arising recede into the past, is to say one and the same thing. A present instant of consciousness defined merely by its place in time is always

present; a present instant of consciousness defined as the beginning of a particular content of consciousness recedes along with that particular content into the past. Accordingly, as each new content arises and recedes into the past, it retains, or tends to retain, in the fading vista, the same place in the sequence, in which it originally arose. In any sequence, that which occurred first in the actual order of experiencing is perceived as farthest away in time from the latest portion of the actually present empirical moment of experience, to which it belongs; and in later and more complex experiences, when the idea of future time has been formed, that which is imagined as just about to occur is mentally seen as nearest in time future to the latest portion of the present moment, and that which is imagined as going to occur later as more remote.

Thus in C D, seen from the end of D, the beginning of the duration occupied by C appears more remote in time than its ending, which immediately precedes the beginning of D; while, if it could be seen from the beginning of the duration occupied by C, the beginning of D would appear more remote in future time than the end of C, and the end of C than its beginning. Moreover, whenever we picture time-sequences by the aid of imagery drawn from space, as the language which we use to describe them shows to be the universal habit, we tend to imagine the phenomena, with which time past and future is peopled by memory or by anticipation, as having a present existence in time which is not present, owing to the circumstance that we imagine them to exist in those

directions of simultaneously existing space, which we use to represent the directions of time. These phenomena then seem to be moving towards or away from the really present moment, according as we refer them to the future of anticipation, or to the past of memory.

Simple as the experience now analysed is, we can already trace within it the rudiments of a distinction which we explicitly draw only at a much later epoch, between the nature or whatness of any portion of experience and the order of its genesis. And this distinction in turn gives rise to another which has greater currency, namely, to that between the Logical Order, or Order of Thought (*cognoscendi*), which is based upon the perception of nature, and the Order of Existence (*existendi*), including both its branches, namely, the existence of real objects in the full sense of *reality*, and the existence of process-contents of consciousness in dependence on them, which is based upon the perception of the order of genesis in experience.

The nature of the experience C D is perceived only when it is complete, or in retrospect from the point of time when D ceases to be heard. But the experience actually occurred as an experience in an order which we call that of genesis, from C to D; that is to say, D was still future, when C was being heard; this order being also that which it retains in memory, C becoming a memory earlier than D, and the memory of C, strictly taken, being one and the same thing with the perception of it, as was shown in the preceding Section. And the same is true of every part of C, and of D, though these may be too minute, or too minutely

differentiated, to be separately discerned except mathematically.

The nature and the genesis of C D are thus clearly distinguishable, notwithstanding that they are inseparable from one another, and from the experience C D, which together they constitute. The genesis builds up the nature from the first instant of the experience crossing the threshold of consciousness, and the nature, so built up as a perception from instant to instant, includes in it a perception of the genesis. The nature is the knowing of the genesis, and the genesis the existence of the nature. For it must be noted (1) that the order of genesis or actual occurrence of C D is known to us only from the order which its two parts have in memory, and (2) that this order is perceived only when we look back upon it in retrospect from the ceasing-point of D. From this it follows that the true beginning of our knowledge is a perception, not of genesis, but of nature, that is, such a perception as we obtain of C D in retrospect. This perception *is* the nature of the experience. We thus perceive, or have experiences, not as the experiences come, but as they go. To be aware of them as they come, in this restricted sense of *coming*, would not be perception in the strictest sense, but anticipation.

In isolating, as we did at first, a single empirical moment for analysis, we had to do with it only in the order of perception or nature, undistinguished from that of occurrence or genesis. There was within our purview no point from which to look either back upon it or forward to it. We who were analysing it were (by supposition) the only

spectators, and of course we had to abstract from whatever might be imported by our own treatment of it. But with the addition of a second empirical moment to the *analysandum*, a step of very great importance is taken. We have already seen, by supposing a mathematical division of time, that memory is in reality involved in a single empirical present moment of experience. But now memory comes into experience, obviously and empirically. Not that it is even now recognised under that name. We have not yet gained the conception of it; but the fact upon which the conception of memory is founded is now actually experienced. A remembered moment with a positive empirical content, note C, is now perceived making part of the content of an actual experience, the sequence C D. In this sequence, when we are actually hearing D, we are actually not hearing, but remembering C. The whole experience is thus distinguished into two parts, a former and a latter; and yet there is no new, no second, act of consciousness or perception involved, but merely a continuation of the same act which was the perception of note C. The continuation of the perceiving is acccompanied by a differentiation of the content C into two notes, C and D, former and latter, the former in memory, the latter immediately present.

I speak, it must be observed, only of memory in its lowest terms, in the sense of retention of a present, not recall of a past experience. To memory in this latter sense, which is memory proper, we shall come in due course; and then shall find, if I mistake not, that the problem which it presents is materially simplified by the foregoing

analysis. For it may not be amiss to remark here, that memory in its essential characteristic, namely, retention of a past in a present moment, has now been shown to take its place among the ultimate facts of experience, being involved in the simplest cases of perception, for which, in fact, it is but another name. Memory, in short, takes its place among the ultimate data of experience, when we begin by simply analysing the phenomena. Whereas, if we were to begin our investigations by assuming some immaterial soul or mind, or even a self-conscious Ego, as the Subject of experience, we should find it a difficult, if not an insoluble problem, to explain how such a Subject could either retain or recall a past, that is, a now non-existent experience, with immediate certainty of its having once itself been an immediate experience—unless, indeed, we were to postulate a particular faculty in the assumed Subject, for this very purpose, a faculty intuitive of past experience, and of past experience only, which would, in fact, be renouncing the attempt to explain the phemomena, and disguising the renunciation by a phrase.[1]

[1] See, in Mr. L. T. Hobhouse's valuable work, *The Theory of Knowledge*, Methuen, 1896, the latter half of the Chapter headed *The Content of Apprehension*, Part I., Ch. II., pp. 50 to 59, and also Ch. V. *Construction*, pp. 81 to 84.—I at one time thought it not improbable that I should be the first to give distinct and emphatic prominence to the fact, that the very least and lowest empirical states of consciousness are cases of memory in the sense of retention, just as completely and just as necessarily as they are cases of sensation, perception, or apprehension; which is the fact upon which the reflective character of consciousness in its entirety, and not only of what is sometimes called apperception, depends; but in this Mr. Hobhouse has forestalled me. I may say, however, that the whole of this § 4, and indeed the whole of Book I., with some few exceptions not affecting the present point, was written, as it now stands, long before the publication of Mr. Hobhouse's instructive though somewhat nondescript treatise.

§ 5. The most important circumstance involved in this differentiation of content has still to be mentioned. It is this. In hearing D, it has been shown, we are retaining or still remembering C. This gives C quite another character from what it had when simply heard, and from what D still has. It now becomes an *object*, as well as a content, of consciousness or experience. In the moment of consciousness actually occupied by D there is contained a memory of C, that is, a perception of C as having preceded D, and therefore as past, in relation to D as present. As object, C is past, but the perception of it as object is actually present. This perception of C is what is called a *representation*, in distinction from a presentation, such as that which is our present perception of D.

Note C is now perceived in its totality, both as content and as process, that is, in both its aspects, which we saw could only be regarded as opposites, not as aspects subjective and objective to each other. But this perceiving it, I mean the perceiving it from D, is but a continuation of the perceiving it which was part of itself, one aspect of its totality, its aspect as process. The latter part of this process, when so continued into D, has its own prior portion, together with the content of that portion, namely C, as its object, the content of C being now continued, but with less vividness, into the portion of the process occupied by D, and therein becoming a representation of C, which is no longer heard as a presentation. The same total content C is now both part content of the moment occupied with the presentation of D, and object, or content objectified, so far as it is perceived as prior

to that presented D moment. The difference in respect of sequence in time constitutes the former part of the process *object*, instead of merely content, of the latter part; and at the same time constitutes the latter part subjective aspect of the former part, that is, a perceiving or a knowing of it. It does not, however, constitute the latter part a Subject, as it constitutes the former part an object. It is subjective aspect only. Subjective aspects must first be objectified and seen in that character; that is, must first become objects of experience in their subjective character; before they can either be referred to a Subject as their real condition, or be grouped together to form a Subject themselves. This would require a different and, as we shall see, a long subsequent exercise of retrospective perception. But again to return to the main current of our analysis.

The whole moment of consciousness occupied by note D is thus distinguished into two simultaneously existing parts, one which for designative purposes we may call the simple experience of note D, the other which for the same purposes we may call the retrospective experience of note C. Of this retrospective part the presentation of note C, including both its aspects, content and process, is the object or objective aspect. It is *that which* is perceived to exist, or to have existed, in the retrospective part into which its content is continued. We have here an instance of the perception of Existence in its lowest terms as distinguishable from *what* is perceived to exist. Just as the content and process, or content and awareness of it, were opposite aspects of each other in note C,

so note C and the immediately subsequent perceiving it are its objective and subjective aspects, when it is seen in retrospect. The *thatness* of C, or the fact that it exists, is the additional thing perceived in this retrospective and objectifying moment, which gives its opposite aspects the additional character of objective and subjective.

The retrospective or representative moment of experience has thus for its content the perception of a process-content differing from itself in point both of vividness and of place in time-sequence. Its content as a perceiving is thus identical in kind, but different in vividness and in time, from that of which, as its object, it is the perception. There is, in fact, a repetition of the process-content in the objective perception of it. And the terms *object* and *objective aspect* always mark, that the perception to which they are objective is a retrospection in order of time upon something already perceived, the content of which is identical in point of kind with the content of the retrospective perception or repetition of it. The sameness in point of kind may be called the logical nexus between the two aspects.

The process-content of one moment of consciousness is in this way the object or objective aspect of the next moment, in addition to the content-process which constitutes that next moment what it is. And each moment of consciousness contains, besides its own content, a retrospective perception of one or more prior moments. The continuation of consciousness in time, with a different content, is the circumstance which first brings to light the retrospective, or as I prefer to call it for a reason

presently to be mentioned, the reflective character of consciousness. All conseiousness, all experience, has in itself a double aspect; every perception, taken simply by itself, is a process-content, or the awareness of a whatness; perception in which the reflective character is apparent is the continuation of this process, with the whatness-thatness of its beginning pereeived over again as a whole. It is itself also an instance of the very charaeter, namely, doubleness of aspect, whieh it perceives. Philosophical analysis itself, sueh as that I have now been attempting, is nothing more than a speeial mode of reflective perception, and continuous with prior instances of it; just as reflective perception is eontinuous with the so-called simple perception whieh it objeetifies. All perceiving is in fact retrospective, and the perceiving in what I have here ealled simple perception, when continued in order of existence into that whieh I have here ealled reflective, looks back upon the simple perception, of which it is the eontinuation, and sees it presented in retrospect in order of knowledge.

It is in a somewhat strict sense that I have employed the term *continuation*. I mean to mark thereby, that there is no sense of effort, strain, or tension, introdueed into the perception of the sequenee, or into the reflective perception of its prior portion, nor experieneed therein, any more than there was in the simple experience of that prior portion. No new act of perception has been originated. There is a reaction, it is true, just as there was in the simple experience of note C, but it is a reaction whieh takes plaee in the conditions of eonsciousness below the threshold, and is

unmarked in the consciousness above it. One reason why we are tempted to imagine a conscious reaction, or act of attention, in both instances, lies in language; since the only language which is at our disposal expresses the conceptions of experience subsequent to the formation of the idea of an Ego, or of a Subject. As when we say, *I perceive* this or that; *I am conscious* of the difference between this and that; phrases all of which express some action on the part of an Ego or Subject, assumed as real, even though it be an action confined to the mere reception of an impression. But now from simple analysis of experience we see, that reflective perception is no more than a continuation of the same process of consciousness which was both perceptive and retrospective, before any marked difference of content arose within it; the perception of C in C D a continuation of the perception of C alone. There is thus no specific function of Apperception, as the Germans call it, required to account for its reflective character.[1] Not to mention, that to speak of a function of Apperception is to speak the language of psychology, not of metaphysic. I am here speaking of consciousness alone, and put aside entirely for the present all consideration of

[1] This is a point of the highest importance, and one to which I would call particular attention, since it appears that so late as 1885 (and possibly later) I had not clearly grasped the reflective or retrospective character of all perception, simple or primary perception included; but still confined the term *reflective pereception*, meaning the act in which experience was supposed to originate, to a secondary act, an act of attention, supervening upon primary perception—that is, to an act not essentially differing from Kant's Apperception. The *two* origins of Experience (giving rise to endless confusion), which are thereby introduced, are by the present more accurate analysis reduced to one—namely, to the moment at which the threshold of consciousness is crossed. See my Address to the Aristotelian Society. *Philosophy and Experience*, pp. 38–39. Published by Williams and Norgate, 1885.

the functions of the Subject, upon which the experiences analysed may be found to depend.

So far, then, as our analysis has gone at present, we have acquired a knowledge of what appear to be two cases of perception, simple and reflective. Simple perception is where a process-content of consciousness seems to be a perceiving and a percept together, wholly undivided from each other, while reflective perception is that in which perceiving is apparently divided from its percept in respect of time, the percept being perceived as prior in time to the perceiving it, the content perceived being continued and common to both. But both cases alike are strictly reflective or retrospective, though this character becomes apparent only in the latter, inasmuch as every state of consciousness begins to recede into the past at and from the very moment of its arising as consciousness, or crossing its threshold. Only we are not aware of this fact in those cases which for that reason we call simple, and which are really nothing but those cases of reflective perception, in the content of which there is no appreciable difference of parts, either simultaneous or successive. In fact, they are those cases in which, owing to minuteness of scale, the reflective character is not recognised as such. We see, therefore, that reflective perception is the primary and universal fact, of which simple perception (so called) is a particular case, and not reflective of simple.

And both cases also are properly called perceptions, inasmuch as both are contents of consciousness or of experience prior to, and independent of, any act of attention for the purpose of further

knowledge of them, or of comparing one content with another. It is acts of this latter sort, namely, acts of purposive attention, by which conceptions are formed. Perceptions are their data; for conceptions always presuppose some material to work upon, just as the process of conceiving presupposes that of perceiving, of which it is a modification by means of the effort of attending to the perceptual data, for the purpose of attaining some sort of further knowledge. The minutest parts, in point of time-duration, into which we may divide any empirical perception, either by purely logical thought, or by the aid of the mathematical calculus, are still parts of reflective perception, although they may not be perceptible separately, owing to their subtilty or to their minuteness. The circumstance that thought is required to discriminate them does not make them pure concepts, or creatures of thought only; for when so discriminated, they must still be thought of as perceptual components of empirical perceptions.

Furthermore, not only are perceptions the data for thought or conception, but also the lowest data of experience are perceptions. Many psychologists, and those who philosophise psychologically, suppose sensations or sense impressions to be the lowest data, upon which perceptions supervene by some conscious or sub-conscious act of attention. They are misled, as it seems to me, first, by approaching the question from the side of psychology, in which sensations form well-defined groups, referable to different sense organs, the functioning of which is a condition precedent to all the higher and more complex functions of

the organism, and then by failing to notice that these groups are named *sensations* only by selecting their most prominent characteristic to designate them by, leaving other features of their nature quite untouched. But from the purely experiential point of view here adopted, it must be admitted that sensations, like everything else, unless perceived, cannot and do not enter into experience. Perception, not sensation, is here the important circumstance. We can neither experience a sensation nor think of one as being experienced, which is not perceived in the one case, or thought of as perceived in the other.

Now a perceived sensation, as we have seen from the analysis, is not a simple but a compound thing, having, in the simplest case, two elements of analysis at the least, a sense-quality and a time-duration. So that if we are to make the best use of the terminology at our disposal, *sense* and *sensation* should be employed for the sense-element in perceptions, and *perception* be employed quite generally, including sense-perceptions as one class among others. It may be convenient for psychology to speak of its ultimate data as sensations; but with that we need not concern ourselves. It is enough, that in philosophy, in metaphysic, in the analysis of experience as such, the ultimate empirical data are not sensations but perceptions, that is to say, process-contents of consciousness, consisting, in the lowest instances, of some sense-quality and some time-duration, inseparable though distinguishable from each other.

Taking perceptions, then, as the lowest empirical data of all consciousness or experience, it has now

been shown, that they are always parts or portions of some one continuous or continuable process of perceiving, first as contents, and subsequently as objects, the process of perceiving being always retrospective or reflective upon itself. Perception as a process consists in the conversion of *content* into *object*, simply in consequence of its character as a reflective process. It is probable that, historically speaking, we become distinctly aware of this reflective character, only when the process has reached an epoch in its development, at which certain complex percepts are objectified as material objects, existing apart from the perceiving Subject. But in reality, as we have seen, the reflective or retrospective character is essential to the perceptive process throughout. Retrospection is essential to perception, which is always perception of a content as it passes away into memory; and this content, being always empirical, that is, containing elements of at least two distinguishable kinds, is always and from the first a *percept*, irrespective of whether it is or is not objectified in a subsequent moment of the process. Supposing it were not so objectified, this would not rob it of its character as a percept, would not undo the fact of its perception, or compel us to think of it as not a state or process-content of consciousness; it would simply prevent its forming a distinct part of our represented and recollected experience. Our non-objectified percept would be strange to us, just as if it was the perception of another person or Subject.

I conclude, then, that the metaphysical analysis of experience, so far as it has gone at present, precludes the idea of there being any such thing as

quasi or latent consciousness preceding, and being either the object or the material of consciousness in the full sense; or as it may be expressed, of any states of consciousness which exist without being experienced, until they are apperceived at a subsequent moment. Conceived in this way, latent consciousness involves a contradiction, since it must at once be consciousness, as being above the threshold, and also non-consciousness, as being unapperceived. It is true that the precise moment at which a process-content of consciousness originates or crosses the threshold is difficult to observe with accuracy, owing to the limitation of our sensibility in point of keenness, the overlapping of sensations in the concrete current of experience, and various other circumstances. It is only the origin of particular states or process-contents of consciousness, singled out from a train of consciousness already set on foot, that we can in any way observe, not the origin of a train of consciousness in its entirety, as for instance in waking from a sound sleep. To suppose that we can observe the origin of a train of consciousness in its entirety, is to suppose that we are already conscious, already awake, before becoming conscious, or before awaking, which is plainly a contradiction. It is also true that sensations on crossing the threshold do not usually, and perhaps cannot, cross it at the instant of their maximum intensity, but rise more or less rapidly through lower degrees of intensity, till their maximum is reached, and again decline in a similar manner. It may also be readily admitted, that the lowest empirical state or process of consciousness may depend for its appearance in or as

consciousness upon successive increments of energy, or upon a summation or a compounding of different energies, in the neural organism, each of which, we may imagine, contributes its quota to the resulting energy, upon which that lowest empirical state or process of consciousness is proximately conditioned to arise. But these facts do not show, that below the threshold of consciousness, take it where we will, there is a region or a time in which that consciousness exists or has existed, latent or unperceived. The least possible empirical state or process of consciousness may indeed be conceived as mathematically divisible into portions, which, if they could occur alone, would not by themselves be states or processes of consciousness; just as the neural processes, upon which they depend, can be conceived as compounded of contributory neural processes, which severally would not be sufficient to give rise to consciousness; though from this it by no means follows, that compound neural processes, or their components taken severally, which are not at the time attended by consciousness, are without their effect upon the nerve organism, or that they contribute nothing to the determining of subsequent states or processes of consciousness.

Consciousness (*Bewusstsein*) and awareness (*Bewusstheit*) of a content must begin and end together, since *awareness* is but a name for the conscious quality which consciousness possesses, though we commonly apply the terms to denote different degrees of clearness or definiteness in that quality. The beginning, or threshold, which distinguishes them from their privative non-consciousness, must therefore be the same for both.

Otherwise we should be supposing two beginnings for a single phenomenon. To feel and to be aware of feeling are inseparable, or rather are one and the same thing differently named, however gradual may be the steps by which, when once a feeling has arisen, it passes into a condition of distinct objectivity. Two things must therefore be carefully distinguished,—one being a fact, the other a fiction; first, states of consciousness which are so faint or so evanescent as to fail in reaching the point of distinct objectivity when they are first experienced, though they may enter as undistinguished contributories into the content of subsequent representations; and secondly, states of consciousness which are falsely supposed to exist as such below the threshold of consciousness, which are pure fictions and self-contradictory.

Furthermore, it has been shown above, that even in the simplest cases of perception, a single sound for instance, the moment of its appearing above the threshold of consciousness is also the moment of its beginning to recede into the past, so as to take its place in the panorama of empirical experience. One and the same process-content begins and continues for a time in consciousness, seeming, to us who think about it, to bear the present moment along with it as it advances, and so constituting what may most properly be called the empirical present; while at the same time since it is consciousness, and consciousness involves memory in the sense of retention, the mathematically present instant, at which we imagine ourselves, or any percipient, to be placed, when perceiving an empirical present, is always an

instant of retrospection upon the conscious process of which that empirical present consists. We thus have an apparent movement in two opposite directions at once, involved in one and the same process of consciousness, and that in all cases. Our next question therefore is, whether this apparent movement in two opposite directions of time is perceived by our supposed percipient, at the stage of his experience now under examination, and, if at all, in what shape or for what reason his perception of it arises.

Looking at the process from our own point of view as observers *ab extra*, and not as it would appear to its own Subject or percipient at the time, we may say that the process-content of consciousness reflects in existing, and exists in reflecting. As reflecting it is a part of Knowing, as existing it is a part of Being. As reflecting it is a prolongation of a series of percepts into a known past, from any given present moment; as existing, it is itself a present moment of consciousness, ever moving forwards into an unknown future. One and the same process-content of consciousness is at once Knowledge and Existence, though this distinction could not be consciously drawn or perceived by its Subject at the time supposed, because at the time supposed he has not only no knowledge of himself as a Subject or percipient, or of an order of real genesis, history, or existence, to which as a Subject or percipient he belongs, but he has no means of distinguishing this abstract, and as we may call it, ever new present moment of consciousness, from the content which is perceived in it or from it. This knowledge, the attainment

of which we shall presently have to examine, affords an explanation of the double apparent movement which gives rise to our present question. And this it does by showing that the point known as the threshold of consciousness, in psychology, coincides with the ever new present moment of consciousness, the former being a moment in the real history of a real percipient, and the latter a moment in the genesis of that percipient's knowledge or experience.

At the present stage, therefore, of our supposed percipient's experience, he has nothing whatever with which to contrast its reflective character. At present, whatever he perceives he perceives in retrospect, or as we may express it, from end to beginning, that is, as *having been*, or as an irrevocable and irreversible fact, the *not having been* of which would involve a contradiction; which experience, I take it, being strictly speaking essential and universal in all experience, is the ultimate ground of our total incapacity of conceiving the past undone;

τὸ γὰρ γεγενημένον οὐκέτ' ἄρεκτον ἔσται.

(Simonides. Fr. 69. *apud* Bergk. III. 1142.)

Our subsequently acquired perception or idea of the present moment of consciousness itself advancing into the unknown future depends upon the perception (1) of its belonging to a Subject or percipient, and (2) of this percipient himself belonging to an order of real existence, history, and genesis. It is only as we proceed with our analysis that we shall see how these notions arise, and how it is that they are compatible with the rudimentary experience of consciousness, as a train of contents

receding into the past of memory. These notions are not acquired at the rudimentary stage of consciousness which we are now examining. To a Subject, therefore, standing at that rudimentary stage, both the receding order of the process-content (in which it is seen at any present moment, and seen in retrospect), and the advancing order (in which it seems to bear the present moment along with it), are as yet one and the same; the former being what he will afterwards call the order of knowledge (*cognoscendi*), and the latter the order of existence or real genesis and history (*existendi*), and that in two branches or subdivisions. And this union of differences (implicit to him but explicit to us) which are really present in one and the same process, though recognised only at a later stage, is only possible because the process is one of consciousness; which, being both a knowing and an existent, has the psychological moment of its real genesis (or appearance above the threshold) coincident with the present moment of reflective perception, in which it is a part of knowing.

As these matters are of considerable importance for what is to follow, I venture at the risk of some repetition to restate my meaning. Suppose, then, the percipient placed at the threshold of consciousness, that is, at any point in time represented by the slit out of which the measuring tape issues, in the illustration given in a previous Section. This point, so far as it belongs to the percipient alone, or represents a moment in his capacity of perceiving, represents a purely abstract present moment, indifferent to any and every content, which in consequence of the percipient's capacities it may

possess. Let us next, and provisionally, suppose that this point is fixed or stationary in time. The percipient placed at such a point will then plainly perceive his consciousness arising, and at the same time retreating into the past of memory, at and from the point of time called the threshold; that is (to keep to our original instance), he will hear first the beginning, then the end, of note C, then the beginning and then the end of note D; so that by the time he hears the end of D the beginning of C is farthest away from him in time of all that he has heard and retains.

But in saying *by the time he hears the end of D*, we imply that the present moment or threshold of his consciousness is no longer stationary, as we assumed provisionally, at the beginning of C, but has moved forwards, as compared to the actually perceived content C D, from what was the threshold or present moment of consciousness, the beginning of C, to a new threshold, the now present moment, which is the end of D; and this real movement forwards of the present moment thus both involves and explains the apparent movement backwards of the content as compared to it. The provisional assumption, that the present moment is stationary, has thus to be retracted; but this makes no difference with regard to the phenomena actually perceived. At the new present moment, the end of D, a new content, say another note, is ready to cross the threshold, and both the threshold and the present moment, which coincide, have thus moved forwards *pari passu* with, but in an opposite direction to, the content C D, which appears to have been going backwards in time from the now

present moment, that is to say, from the end of D to the beginning of C; just as a passenger in a railway train, seated with his back to the engine, sees the objects by the side of the line apparently moving backwards, as he and the train move forwards. It is therefore indifferent whether we suppose him perceiving from the point called the threshold, which necessarily moves forwards in time with his own continued existence as a percipient, or from the ever new present moment of consciousness, since in both cases his whole experience lies in retrospect only. The retrogressive character of experience or consciousness, consisting as it does in certain essential and intrinsic features of consciousness itself, is first in order of knowledge, and attaches to it quite independently of any hypothesis whatever, even though that hypothesis be one which explains how the retrogressive character comes to be recognised for what it is; as, for instance, the present attribution of it to a percipient Subject, whose existence follows an opposite or progressive direction. A few words more must be said on this point.

To say that the process-content of consciousness moves backwards, and to say that the present moment of consciousness moves forward, in time, is really and in fact to say one and the same thing, since each movement involves the other. But although both ways of perceiving the same phenomenon are equally contained in it, yet it is only the former of the two which is explicitly known to a percipient, who has not distinguished the abstract and ever new present moment of perceiving from its content; that is to say, until then he perceives

it only as a content fading into memory, or as perception and percept, present moment and content, in one. And this distinction, between the abstract and ever new present moment of perceiving and the process-content perceived in it, he cannot draw, until he has attained the perception of himself as a percipient, to whom the abstract moment of perceiving belongs, and belongs as a moment of time in which a new content arises. No mere thinking about the process-content would suffice so to separate, for him, the time-element from the material element in his experience, as to enable him to imagine them as moving in opposite directions from each other, when all his experience has shown him both elements closely combined, and moving together in the same direction, that is to say, into the past of memory.

Our supposed percipient, therefore, at that stage of his experience with which we are now concerned, is aware only of this retrospective perception from the ever new present moment, without having any means of distinguishing the really moving present moment from the apparently moving content of perception. All that he perceives is C passing into memory and succeeded by D, which in turn passes into memory also, and so on until C drops out of memory altogether. What he does not perceive, therefore, is (1) the distinction of the abstract present moment of perception from the contents or percepts which successively occupy it, and (2) the forward movement of that abstract present moment, even as another way of regarding the passing of contents into memory. The reason of which is, that he has not yet attained

the notions, (1) of himself as a percipient, (2) of his consciousness as his ; and therefore also has no notion of a threshold of consciousness, that is, a point of time at which its several contents are conditioned to arise, by operations which take place within himself as a real being, but has these notions still to acquire from further contents of consciousness, or further experience, occurring in the same shape and order of knowledge as that already known to him. To him, therefore, his experience appears simply as a series of percepts, arising and vanishing in time, without a percipient, but existing (as we should say) *per se*, unrelated to, and unexplained by, anything beyond the series.

We, on the other hand, who have acquired these notions, can see that his consciousness is the consciousness of a percipient Subject, dependent upon processes in that Subject which go on below the threshold of his consciousness ; and consequently, that his consciousness, being attached to the history and development of a real being, has always a threshold and a present moment, which together move forwards, or into the future, in time—as compared to the original apparent regress of his experience into the past in time—because they move forwards in order of existence, along with all the other really existing objects which compose the really existent world.

The perception of the direction called forwards, or into the future, of this real movement, involving that of the threshold, and of the present moment of consciousness, is founded on, and arises only in consequence of, differences in the contents of

consciousness which have still to be examined, but which all occur in the same original form of simply retrospective perception, which is the first to be perceived in order of knowledge, the form, namely, of contents of consciousness successively fading in, and vanishing out of, consciousness, or what is the same thing, ceasing to be contents of the actually present moment. And perception in this form, in which, be it noted, the successive vanishings or ceasings of *presented* contents at least are observable and rememberable facts, is a positively perceived *datum*, prior to the perception of its having a direction opposite to that which we subsequently call forwards, or into the future, and is in fact the chief condition of that opposition between the two directions being perceived. The result, as will appear in due course, is, that consciousness as an existent, or what is the same thing, as the consciousness of a real Subject or Percipient, is always moving forwards, with the rest of real existents, in the order of real genesis and history, and always consists, as a knowing, in reflection upon itself, that is, upon its own past contents, from every successive present moment actually reached in that forward movement, this reflective perception constituting what we call the order of knowledge.

Reviewing in the light of these considerations the whole subject of Reflective Perception, we can now see how the view here taken of it, founded on analysis of actually observed facts, not only solves the difficulty raised by the psychological theory of

Apperception, but also puts us in a position to face those logical difficulties which seem to involve every mode of conceiving consciousness in a contradiction, and thereby exhibit consciousness itself as an impossibility, a conclusion very welcome to the philosophical sceptic.

As to the first point, the difficulty raised by the psychological theory of Apperception consists in its introducing two moments, a former and a latter, into the genesis of consciousness, the former being that at which consciousness is supposed to begin in a latent or unapperceived state, and in which it is supposed to continue until the latter moment, the moment of Apperception, supervenes, and raises it to the rank of consciousness in the full and proper sense of the term. The question which this view forces on us is, which of these two moments is to be taken as the true beginning or threshold of consciousness; and then, whichever of the two we take, the state which intervenes between it and the other moment will be a state which either consists of consciousness and non-consciousness at once, and so involves a contradiction, or else consists solely of non-consciousness, which, as such, is not capable of being apperceived. From this difficulty we are saved by the analytically discovered fact, that all perception is reflective, which identifies the two moments held apart by the theory of Apperception, and considers the difference between consciousness and distinct awareness of consciousness as a difference of degree only, both degrees of it lying above the threshold.

As to the second point, the logical difficulties which it was said above we should now be in a

position to face, these difficulties arise from the fact, that there are empirical minima of perception, *minima sensibilia*, in point both of intensity and duration; as it is plain there must be, since, unless states of consciousness had some finite degree of intensity however small, and some finite length of duration however brief, they would not be empirically perceivable, that is, would not exist as states of consciousness at all. In this sense, therefore, empirical minima of perception, or *minima sensibilia*, are indisputably real.

The difficulties in respect of the possibility of consciousness or experience which arise from misconception of this fact are of two kinds, one relating to the building up of a connected experience on the basis of *minima sensibilia*, taken as if they were so many separable atoms of consciousness, the other to the logical conceivability of a *minimum sensibile*, and therefore, mediately, to the reality of that mode of consciousness, namely perception, which is admittedly not possible without it. These difficulties it is which our foregoing analysis enables us, in principle at least, to meet and solve.

With regard to difficulties of the first kind, the solution depends upon noting, that the reality of *minima sensibilia* by no means implies, either that they are ultimate data of experience, or that a connected experience, if built up at all, must be built up out of them as such data. It is to misconception of these points that the apparent objection to the possibility of a connected experience founded on perception is due. Connected experience is built up, in the way which our analysis has already shown in one very simple case, out of

immediate empirical perceptions, in which formal and material elements, inseparable from each other, are distinguished; not out of *minima sensibilia*, or minima of empirical perception; nor are any such minima or minimal percepts distinguishable in them by perception, as inseparable parts or constituent elements. It is true that *minima sensibilia* are real, in the sense that empirical perception has a minimum or lower limit, in point both of intensity and duration, below which it would cease to exist as empirical perception, but this fact is not among the data of experience. It is brought to light by thought and reasoning dealing with perceptual data, and its truth may be confirmed by experiments instituted for the purpose of ascertaining mathematically the limits at which the minimum must be fixed.

Again, and still more clearly, if *minima sensibilia* are taken as separable realities, or atoms of consciousness, they must be held to be creatures of thought in the first instance; it is by inference only that their possibility is made known, and whenever the attempt is made to produce them artificially by experiment, they always appear as brief flashes on a background, or brief moments in a context, consisting, not of other *minima sensibilia*, but of some kind or other of continuous consciousness. In short, the admitted fact that every state of consciousness has a minimum limit in intensity and duration, is very different from the supposed fact (out of which the difficulties in question spring), that all consciousness consists of states which do not exceed that limit, that is to say, states to which it is a maximum limit also.

Consequently the difficulties, whatever they may be, which lie in the way of understanding how a connected experience can be built up out of *minima sensibilia* as separable atoms of consciousness, are non-existent for those who neither rely on them as the ultimate constituents of a connected experience, nor even admit them as immediately known facts, though allowing and even maintaining the reality of *minima sensibilia* in the sense of minimal limits of duration and intensity, the attainment of which is implied in every case of empirical perception or consciousness.

Coming to difficulties of the second kind, we shall find them, if I mistake not, far more formidable, for here a contradiction seems to be disclosed in the very conception of a *minimum sensibile*, whereby perceptual consciousness itself seems to be rendered a logical impossibility, and consequently to be robbed of all its apparent trustworthiness. The main difficulty consists in this, that the time which every such empirical *minimum sensibile* occupies (to say nothing as yet of its degree of intensity), is mathematically divisible into portions far less than itself; which compels us to conceive the *minimum sensibile* as divisible into portions, not one of which is empirically perceivable, yet all of which must elapse before—simultaneously with the elapsing of the last of them—the empirical minimum is reached, and consciousness arises. Consciousness, therefore, must on this showing be built up out of infinitesimal moments of non-consciousness, which is a contradiction of the same kind as that which we have seen arises on the theory of Apperception. All consciousness being

a process, that is, having time-duration, and a certain finite duration being essential to the least empirical portion of it, the question is—What are we to think of the parts into which that least empirical portion is mathematically divisible; are they consciousness or non-consciousness? If they are consciousness, then the whole which they compose is no minimum of consciousness, and since this applies to every portion which we can take as a minimum, there can be no minimum of consciousness, which makes consciousness impossible *ex hypothesi*. If they are non-consciousness, then the whole which they compose is not consciousness at all. We are thus placed in a dilemma, either alternative of which is fatal to the logical conceivability of consciousness or experience.

The case is similar when we advert to the minimal degree of intensity requisite to a *minimum sensibile*, provided we still conceive consciousness as a process, that is, as having to pass through lower degrees of intensity before arriving at that degree which is, by supposition, the least which is empirically perceivable. I make this proviso, because it is at least conceivable, that a sensation should start into existence originally at any given degree of intensity, without having to pass through lower degrees before reaching it; since, intensity not being necessarily thought of as a continuum, higher degrees of it are not necessarily conceived as composed or built up out of lower degrees, but may be thought of as quantitative measurements of sensation which we arrive at in comparing one sensation with another, each sensation having its own peculiar degree inherent in

it. Whereas with time the case is different; the existence of anything for a certain time-duration, time being a continuum, of itself implies its having existed through the shorter time-durations of which the given duration is made up. But with the above proviso, the difficulty offered by degree of intensity is precisely the same as that offered by time-duration. What are we to think of the lower degrees of intensity in sensations, prior to the degree which gives the requisite empirical minimum? Are they consciousness or not? The difficulty is the same. It is the same dilemma in which we are placed by both branches of the subject, and certainly that dilemma at first sight is a formidable one. Put briefly it is this: We cannot have experience, until we have had experience already.

Now there is no escape from this dilemma in the doctrine of a double threshold of consciousness, the doctrine of Apperception. That is either the very dilemma from which we are trying to escape, or else it doubles the number of cases in which the dilemma arises. The difficulty must be met on the ground of a single threshold of consciousness, a single originating moment of experience. The possibility of a *minimum sensibile*, and the possibility of the moment of crossing the threshold of consciousness, are one and the same thing. That old-fashioned remedy, "a hair of the dog that bit you," is the true loophole of escape, leading to the true solution of the difficulty. Consciousness is indissolubly bound up with time, which is an inseparable element in it, making it a process, and all its contents process-contents. Also time is that

element in it which gives mathematic its hold over it, so that what is mathematically true of time is true also of consciousness or experience, in its character of a process in time. Now time *per se*, and therefore also any given time-duration, is mathematically divisible *in infinitum*, not merely *in indefinitum;* not merely into some unspecified number of infinitesimal durations, but into a number which cannot be specified (if this paradoxical expression may be permitted), that is to say, it is divisible *for ever* without being exhausted. In this fact lies the first step towards a solution of our difficulty.

The dilemma presented to us is founded upon the fallacy of substituting a divisibility of time into some unspecified number of infinitesimal but still finite portions, for an infinite divisibility of it; or in other words, imagining time itself to be composed of successively existing finite portions, instead of being a continuum, the mathematical divisions of which are introduced solely by our own thought, for the purpose of measuring its content, and on the basis of observed differences in that content. Time itself becomes self-contradictory when imagined in this fallacious way. If finite portions of time are pre-existing parts, the succession of which composes time, or out of which time is built up, we cannot, logically speaking, live through an hour without having already lived through that hour,—or through a minute without having already lived through that minute,—and so on, however brief may be the portion of time which we take as the minimum, or ultimate indivisible duration. And even then we do not get rid altogether of continuity, since the supposed ultimate

or indivisible duration must still be thought of as a continuum *ad intra*, its reduction to a mathematical instant without duration being impossible without annihilating it.

Continuity, then, being an essential element in time, it is only the conception, that time is infinitely divisible, which enables us without self-contradiction to conceive it as continuous, and the content which occupies it as a continuous process, so far as time alone is concerned. For its infinite divisibility precludes our taking any infinitesimal or other finite portion as a statical datum, or atom (so to speak) of time, and forces on us the conception, that time-process or duration first gives the possibility of division into portions, instead of division into portions giving the possibility of time-process or duration. In other words, when for the purposes of thought we take some instant as the beginning of any portion of time, the first increment of duration, from that instant, is an increment of a subject for division; far from being a minimum of duration, it contains *in posse* an infinitude of lesser durations, not one of which is a minimum. (I interpose the remark, that it is sense-perception which originally gives the experience of time-duration, thereby offering, as it were, to thought something divisible, or in which, for purposes of better knowledge, it may take mathematical instants dividing it. But to return.) According to this, which is the only true mathematical conception of the divisibility of time, we are actually living through a minute from the initial instant of that minute (though the name of *minute* is given to it only on the supposition, that what minutes are

has previously been ascertained), and through an hour from the initial instant of that hour,—and so on, for whatever time-durations may be in question. We are no longer required to suppose, that we have already completed the minute, or the hour, before beginning to live through it,—which is a contradiction arising only from our misconception of our own thought and method of dividing time mathematically.

But now to take the second step in the solution, by applying what has been said to our present special and more complicated case, the difficulty of logically conceiving a *minimum sensibile*, or least empirical moment of consciousness. A *minimum sensibile* is a presented content having some short time-duration, say from o to a, and some low degree of intensity, say from o to b; lesser durations and degrees of it being indeed mathematically thinkable in it, but *ex hypothesi* not presentable to sense; so that the mere fact of its being a *minimum sensibile* seems to force it back into the very same self-contradictory predicament, logically speaking, of being at once a process and yet a statical datum or atom of consciousness, from which, in the case of abstract time, infinitesimal time-durations were rescued by the true mathematical conception of infinite divisibility. That is to say, owing to its actual existence as a *minimum sensibile* we seem forced to suppose, that it does not actually exist as a presentation, until it has (so to speak) lived through the requisite duration o to a, and the requisite degree of intensity o to b; and the question again arises concerning it with renewed force,—What is it, while it is living through them, that is,

while it is passing through the intervals o to a, and o to b? Is it consciousness, or non-consciousness?

The thing itself has a double nature, and the name which defines it is drawn from a double source, sense and thought. As *sensibile* it is a content of sense, as a *minimum* it is a determination of thought. If the nature of the abstract intervals alone was concerned, the answer would be clear from what has already been said, since what they are is a purely mathematical question; they are processes actually going on, *in fieri*, up to the instant of completion in a and b respectively. There is no difference in kind between the process *in fieri* and the process when complete. But here, the nature of the *minimum sensibile* being double, an object of thought while *in fieri* and an object of sense-presentation at completion of that process, a new element of difficulty is introduced into the question; but at the same time it is plain, that both these natures must be taken account of in the answer, and that neither exclusively can supply it. Both must concur, and the answer must be founded on this double nature.

Now it must be remembered, that it is the nature of what we have called the moment of crossing the threshold of consciousness which is in question. A *minimum sensibile* means any content taken at the moment of its crossing the threshold. And this moment, like its content, is also double in the same way. Sense and thought alike concur in our conception of it. That is to say, we think of it mathematically as a process in order of genesis ending in a *minimum sensibile*, and we actually experience it as a perception having a certain

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duration and intensity, and a place in a series which recedes into the past of memory in order of knowledge from the moment of its arising. It is analysable as a process into sequent parts in order of genesis by thought only, not by sense. The fact that, as perceived, it escapes this analysis of thought, is what renders it a *minimum sensibile*, or least empirical moment of perception or consciousness. It is thus a moment which is one thing for mathematical thought, and another thing for sense-perception. And in this there is no contradiction. The difference is not a difference *secundum idem*. The interval lying between the two mathematically discerned instants, which we take as its beginning and its end, o to a, or o to b, is too small to be perceived as divisible by sense. Its parts are only ideally discernible. It is a fallacy to ask what they are for sense. It is a fallacy to ask what they are *per se*, independently of what they are known as. And one or the other of these fallacies we fall into when, in asking what the interval consists of, we expect any other reply, than that it is a process of genesis, the successive parts of which are distinguished by thought only. It is one and the same moment of crossing the threshold of consciousness which is thought of as a process in order of genesis, and actually experienced as a *minimum sensibile*, or minute empirical sensation in a receding series. In both modes of apprehension it has duration and degree of intensity, but these in the one mode are, in the other are not, distinguished into lesser parts. Thought, in distinguishing them, is in fact following up, not an actually presented

moment of experience, but its own representation of such a moment.

We see, then, that just as there are two heterogeneous sources contributing to the definition of a *minimum sensibile*, thought and sense, so there are two kinds of misconception to which it is liable, and which it is necessary to discriminate, referring each to that source from which it arises. The first of these attaches to it simply as a process in time. It may be falsely imagined that the *minimum sensibile*, simply because it is a process, cannot exist until that process is completed. And on this point we have now seen, that an abstract time-duration must be held to exist as a process *in fieri* from its initial to its completing instant, just as, to take a familiar example, the time-duration called *Monday* exists as a process *in fieri* from 12 p.m. on Sunday night to 12 p.m. on Monday night, and does not wait till the stroke of 12 on Monday night to come into existence.

The second kind of misconception, which complicates the case considerably, arises from the fact that, in its character of a sense presentation, the *minimum sensibile* is not perceived as divisible into parts; which leads us falsely to imagine that it is instantaneous, occupying no duration, and consequently that its occurrence must be referred either to the initial or else to the completing instant of that process with which thought identifies it; either of which alternatives involves us in insuperable difficulties. What we have seen on this point is, that the phenomenon which is for thought a process consisting of a succession of parts, and for sense a single undivided state of consciousness,

is one and the same phenomenon, namely, that of the rising of a state of consciousness above the threshold, or the moment of crossing the threshold of consciousness by a perception or an experience, and that moment only, so that the apparently instantaneous *minimum sensibile* must be identified with the whole of the process which thought discerns in it, and not with either of the instants exclusively, between which that process intervenes. And this result entirely harmonises with what we have already seen is the true mathematical conception of time, namely, that duration comes first, making division of duration possible, and not *vice versa*; the two cases presenting this difference only, that the *minimum sensibile* is a content having duration presented to sense, while time mathematically conceived is abstract duration represented as capable of division by thought. The essential point is, that, in both cases or modes of knowing alike, duration is prior to division in order of knowledge.

But though I have thought it advisable at this early stage to deal with the difficulties arising from the fact of *minima sensibilia*, inasmuch as they may be made the basis of sceptical objections to the conception of Reflective Perception, and indeed to the trustworthiness of perceptual consciousness generally, it must always be remembered, that the fact of *minima sensibilia* is not a fact which belongs to early or rudimentary experience, nor one which has a place among its immediate data. It is a fact which is discovered only by analysis of experiences in which processes of thought as well as perception are included as part and parcel of the object-matter analysed, and

these are processes which we have not as yet touched on.

Perceptual experiences of the same degree of immediateness and simplicity as those of notes C and C D, already analysed, are pre-requisites of thought in the sense of providing it with material on which to operate by way of purposive attention, comparison, conception, and judgment. They do not wait to be perceived, until they have been attended to and classed. Without the perception of time-duration as what we afterwards call a continuum distinguished into parts solely by differences in its co-element of sense, the idea of a mathematical division of time, by instants having themselves no duration, could not arise. There would be nothing to divide. Moreover, such a division, by a point or instant of time having no duration, cannot in fact be thought of without our also thinking of the time-durations preceding and following it. It is made into a distinct object by thought directed upon sense-perception, and notwithstanding that the division itself is thought of as having no duration, this is not the case with its subjective aspect, the thought which is the thinking of it, for this necessarily occupies some empirical duration, namely, the then present moment of its existence as a content of consciousness, of which the division itself is the object. It is therefore true, and not unimportant to remark, that, supposing (*per impossibile*) the sceptical objections we have been dealing with to hold good, they would be just as fatal to the conceivability of Thought as to that of Perception. Thought equally with Perception takes place only in empirical present

moments of consciousness; the least act of thinking is itself a process.

Thought and Perception are modes of consciousness which it is the business both of scientific and philosophical Thought to bring into harmony, by verifying the conclusions of the one by comparing them with the data of the other. But that, in order for Perception to be possible, it must have the peculiarities of Thought, or in other words must perceive in phenomena the ideal distinctions which Thought introduces into them;—which in the present instance would mean perceiving, not only empirical *minima sensibilia* as separable objects, but also the infinitesimal durations into which they may be mathematically divided;—this doctrine, which is the basis of the sceptical argument, is neither proved nor capable of proof. The attempt to incorporate it in a philosophical system would require the further assumption, that pure Thought is an energy creative of its own perceptual content, which would run counter to everything we know of the real relations between these two modes of consciousness, and between the phenomena respectively referred to them. It is Thought which is impossible without a perceptual content, not Perception which is impossible without perceiving conceptual distinctions.

It will now be evident why I prefer the term *reflective* to that of *retrospective* perception. It is because the latter too readily suggests the idea, that whatever is perceived is empirically different from, and prior in time to, the moment of knowing

or perceiving it, or as it may be expressed, that the process-content said to be perceived is empirically different from the process-content called perceiving it; while the term *reflective* (owing probably to its association with reflexion in mirrors) does not so obviously exclude the idea of their being empirically identical and simultaneous, as in fact, and in the strictest sense, they are, in the lowest and simplest cases of ordinary experience, such as our note C, and also in empirical *minima perceptionis*, although the latter are discerned, in ordinary experience, only by analysis and abstraction, and are never known, even in laboratory experiments, to be experienced in complete isolation from a context. Both terms being figurative, the term *reflection* does less violence to the facts, to which it has to be applied. Strictly speaking it may be said, that both retrospective and what we call simple perception are particular cases falling under reflective, while the latter term expresses the universal law. Objectification, or the perception which makes objects out of contents of consciousness, would then be a case falling under the retrospective branch of reflective perception.

Reflective perception, however analysed, is one of those cardinal facts of experience, upon our insight into which the whole complexion of our philosophy depends. It has been the main clue or guiding thread, of which I have endeavoured to keep a firm hold in all the three works, previous to the present, which I have published on philosophy. It seems to me, that it is only in the present, that I have reached its true and sufficient analysis. In those former works, the nature and position of

reflective perception were not demonstrated from the analysis of consciousness alone, as distinguished from its character of being a psychological function, but psychological functions were assumed as involved in the modes of consciousness analysed. In the latest of these works, the *Philosophy of Reflection*, it was indeed shown, that the perception of a double aspect, subjective and objective, in states of consciousness, was a necessary pre-requisite to the perception of Objects as distinct from the Subject, and that the perception of this double aspect was necessarily a reflective perception; so that reflective perception was shown to be a pre-requisite of all objective knowledge, whether physical or psychological. But the material for this reflective perception was assumed as given in what I there called primary consciousness; so that, in virtue of this assumption, the idea of some unknown or transcendental source of consciousness could not be rigidly precluded, and reflective perception was left practically undistinguished from the familiar psychological function of Apperception. In other words, it was still necessary to show—supposing us to start from the content of consciousness alone, strictly abstracting, in the first instance, both from a supposed Subject and from supposed Objects—that all perception whatever, including what I had called *primary* as well as what I had called *direct*, was reflective *ab initio* and throughout, and to show this from the analysis of consciousness alone, taken simply in its character of a knowing.

This I consider has now been shown, without introducing any psychological conception, or

treating reflective perception itself as a psychological function. For although in analysing it as experience simply, and in clearing it of apparent contradictions in that character, I have appealed to the psychological fact of the threshold, and the existence of real conditions of consciousness below the threshold, yet it will, I think, be plain, that I have done so only on the supposition that these facts, including the existence of real and psychologically distinguishable functions, such, for instance, as Perception and Thought, will be fully justified in later Chapters, by showing how the knowledge of them springs out of later or more complex consciousness or experience, taken as experience simply, just in the same way as that rudimentary experience has been taken, which has been already analysed. If that later demonstration should break down, then all the support would vanish, which the conception of a threshold, and of real conditions of consciousness below it, lend to the interpretation of the foregoing experience.

The method of approaching the task of such an analysis was disclosed to me, some years after the publication of the work just mentioned, by the insight, which I recorded in various Addresses to the Aristotelian Society,[2] to the effect that the common-sense form of experience, which is shared by all men prior to their commencing to philosophise, is the *explicandum*, and therefore the starting point of philosophy, and therefore also is that form

[2] *The Two Senses of Reality*, pp. 12 to 21. Printed for private circulation. 1883. *The Relation of Philosophy to Science*, pp. 16 *et sqq.* Published by Williams and Norgate. 1884. *Common-sense Philosophies.* Published in the Proceedings of the Aristotelian Society. Vol. 1. No. 2. Williams and Norgate. 1889.

§ 5. Reflective Perception.

of experience to which philosophical analysis is immediately to be applied. The taking this form of experience as the *analysandum* gives what I hold to be the true philosophical method, because it alone involves no assumptions, prior to commencing the analysis itself. And this it is which, I think, has at last decisively relieved philosophy from its former dependence upon psychological conceptions; whether that dependence consisted in the grouping of its phenomena under psychological functions, or in the adoption of any kind or kinds of psychological agency, as being beyond doubt essential to consciousness, or necessarily bound up with it. In the present work, accordingly, consciousness is shown to be a reflective process throughout, reflective in all its branches and modes, reflective in its lowest and simplest phenomena, as well as in its highest and most complex. In short, the conception of a double centre of experience, which is involved in the German psychological function of Apperception, is avoided, and that without recourse to the assumption, also German, of a creative agency in consciousness itself.

§ 6. Primary Percepts.

§ 6. When we look at experience on the large scale, at any period of its history, we come to the same conclusion, namely, that the moment of experiencing is a moment of reflective perception, though on the large scale it is the retrospective form of it which meets us. All thought pre-supposes data to go upon. And by a *datum* must be meant something which is already perceived before its re-perception can begin, some material already offered to think about. Here, however, it may be said, that the proof is not strict, when experience in the

gross is concerned, because we cannot put ourselves back in memory to the first origin of our conscious experience in the days of infancy. We cannot begin our re-perception with the dawn of consciousness. If we could, we should find that we had perceptions which were not retrospective.

To this I reply as follows: If we could do so, what we should come to would be perceptions which are identical in kind with those already analysed, namely, the perceptions of C and C D. And then the results of that analysis would apply to them. For it will be remembered, that we took C and C D severed artificially from their context, and therefore precisely in the position of original or historically first perceptions, so far as their own process-content is concerned, and abstracting from the fact that they are perceived as having a context distinguished from them. We are not now discussing the possibility of there being a genesis of consciousness at all, nor how such a genesis is conceivable. We are not now constructing the history of an individual consciousness, but simply analysing parts of it, taken for the purpose of analysis out of a previously known common-sense experience; that is, we are as it were watching for instances of a required kind to occur in order to be analysed. The experience is still future when we form the purpose of analysing it. By this proceeding we put whatever instances of experience we analyse into the position of historically first perceptions; we abstract from what has preceded them; of course with the expectation, that the analysis of experiences of all kinds, if carefully performed, and confirmed by repetition, and also with their

results compared and used to control one another, will throw light on the universal modes of sequence and co-existence obtaining in the process-content of consciousness as a whole; modes, therefore, to which it may be inferred to conform, at any and every period of its history.

The objection, therefore, drawn from the defect of memory merely throws us back upon the results of our analysis. A simple or historically first perception like C is not taken up, as a recognised link or member, into a connected chain of experience or consciousness, until it is, or rather except by being, objectified in a subsequent moment, as in C D. Until then, the consciousness of it is imperfect, expectant, not completed by perception of its relations, but is in process, *in fieri*, only. Suppose the consciousness to stop short at C, before reaching C D; it is still reflective, inasmuch as it is a process-content having duration and retreating into memory, but it is not objectified, and there is no larger consciousness, or experience, of which it forms a part. It may indeed itself be called a brief and isolated experience; but even so it is reflective. Restore it to its context, and its reflective character becomes obvious as well as real. There is thus no such thing in actual experience, nor can there be, as a non-reflective perception.

Passing to reflective perceptions in which the reflective character becomes obvious, which we call retrospective for that very reason, and of which C D is one of the simplest instances, we see that the prior moment is distinguishable as the object of the latter, which latter contains in it the subjective

aspect of the former. The moment of consciousness occupied by D contains in it a retained perception or representation of C, which representation is the subjective aspect of C as occupying its own, the prior, moment. The total perception, which is reflective throughout and in its entirety, is thus seen, in virtue of its scale, to be retrospective also, that is, to have within it the double aspect, to contain in fact the subjective aspect, or perception, of an object.

But when seen, and how? In and by a subsequent moment of retrospective perception. As a fact it contains a subjective aspect or perception of an object, and it is seen to do so by a subsequent retrospective perception, in or to which it stands in its totality as object. It is subjective to what precedes it, objective to what follows it. Prior retrospective perceptions thus take the place of objects to subsequent retrospective perceptions, just as objects in retrospective perception took the place of the contents of simply reflective perception. Retrospective perception is here the subjective aspect, or perception, of an object which is a prior perception.

The two moments, former and latter, of any retrospective perception being thus distinguished, and the latter portion giving its name to the whole, it will be convenient to have some term to designate the former moments, prior to their being taken up into a connected chain of experience; or, what is the same thing, to designate simply reflective states or process-contents of consciousness, considered by themselves, and apart from their being objectified in retrospective perception, that is,

considered simply as contents, not as objects, of perception. Note C, which we first analysed apart from its place in the sequence C D, would be an instance. So would simple empirical perceptions of any kind, and so also would any moment of change from one simple perception to another, as for instance the moment of transition from C to D, in the case analysed.

But since we have found, that every connected chain of actual experience is retrospective, consisting, at every point, of a former and a latter portion, we may isolate by abstraction, and then group together, all the former portions; and then by a further abstraction, exclude from their number those into the content of which there enters anything which has already been objectified by retrospection. I propose, then, to call any state or process-content of consciousness, which is isolated by abstraction, and considered as a mere content prior to objectification, a state of Primary Consciousness, or a Primary Percept. All perceptions in their lowest terms, of whatever kind, whether sensations, emotions, or pleasures or pains attaching to either, may then be characterised as states of primary consciousness, and considered, whenever they come forward in experience, as that part of it which is the material for, or the as yet unobjectified content of, retrospective perception. The analytical distinction thus drawn between primary and objectified percepts, or primary and retrospective consciousness, may prove serviceable, and possibly take its place side by side with those previously drawn (1) between the subjective and objective aspects of experience

and (2) between the material and formal elements, that is to say, the sense-element or sensation, and (so far as we have gone at present) the time-element or duration, of perceptions.

§ 7. Finally it must be noted that, although the ultimate data of experience, without which all further or more complex forms of it would be impossible, consist of states or process-contents of consciousness, this by no means implies that they consist of states or process-contents of consciousness as distinguished from realities. This is a distinction which does not exist in sequences consisting only of immediate data, and the origin of which within experience itself has yet to be shown. From the fact, that the ultimate objects known by experience are states or process-contents of consciousness, we cannot argue that all objects known by experience are also, or are nothing but, states or process-contents of consciousness. We have, on the contrary, to wait and see what experience itself tells us on this point. To do otherwise would be to import by assumption the familiar common-sense distinction between consciousness and reality into the data of immediate experience, an assumption which necessarily carries with it a system of Idealism.

We began, it will be remembered, by abstracting from knowledge of a more special and complex kind than the experiences selected for a first analysis. Now, though there is a sense in which perception is distinguished from reality and real existence, this sense of the terms belongs to that more complex kind of knowledge from which we have purposely abstracted. We shall see as we

advance, in what the distinction consists, and how the terms *reality* and *real existence* originally acquire a meaning. Until they have acquired one, the consciousness or perception, out of which that meaning arises, cannot be itself perceived or experienced as consciousness or perception in contra-distinction from them. Consciousness itself cannot be recognised as such, until something is perceived which is, apparently at least, non-consciousness, wherewith to contrast it. Forgetfulness of this fact involves, in philosophy, the adoption of the objective method as proper to philosophy, and therewith the assumption of an *a priori* idea of reality—that is, of an idea as the prior condition of experience.

At present I remark only, that the term *perception* is another instance of a phenomenon which we have already met with in the case of the term Being (Chapter I., § 4). I mean the circumstance of its having two senses, a wider and a narrower, the narrower being included under and distinguished from the wider, by being distinguished from some special opposite of its own. In such cases, the term in its wider sense is always a percept, or content of reflective perception, and in its narrower sense a concept, obtained by comparing in thought one part of that percept with another. This phenomenon was perceived and utilised, though not analysed, by Hegel, who built his whole system on the hypothesis, that this self-contained opposition was essential to the law of thinking, or law of the movement of Thought; conceiving Thought, as he did, to be a self-existing and self-determining agency.

But it is just phenomena of this kind which stand in the greatest need of analysis. Accordingly

I began by abstracting from complex cases of knowledge, until simpler cases should have been analysed. I began by analysing the moment of experiencing, and it was found that it always yielded perceptions, that is to say, perceptions in the widest possible sense of the term. But to understand this result as if it meant, that experience consists of perceptions *and not of realities*, would be to assume the distinction between perception and reality already known, prior to experience; in which, on the contrary, it must be found, or from which it must be deduced, if it be a valid distinction at all. By making this assumption we should in fact be re-introducing and covertly employing the very kind of knowledge from which, in obedience to our method, we consciously and purposely abstracted. And in consequence of this fallacious inconsistency, we should be assuming experience to be the negation of that very reality, the perception of which is experience itself.

In contrast to this illogical procedure, the method here adopted will lead, as I venture to think, to results very different both from the denial of reality, and from its absorption in perception or in thought. We shall doubtless find disclosed to us new senses of the term *reality*, contained within and distinguished from the largest sense, corresponding to different modes of perception and thought, disclosed *pari passu*, which will be their evidence. That is to say, our knowledge of reality will be enriched, as more and more of the content of experience is brought under analytical examination.

The positive result of the present Chapter is briefly this, that, in analysing the moment of

§ 7. Perception not exclusive of Reality.

experience, reflective perception is the only thing from which we cannot abstract, without destroying in thought the thing analysed. Whatever experience may contain must at least be a percept; and whatever a percept may contain must, if taken up into a connected chain of experience, at least be an object of perception. Perception characterises all experience, and all perception is reflective. But of course we must be careful to avoid imagining, that the meaning of the terms, by which we have now described the consciousness or experience which we have been analysing, could have been understood by a conscious being, who should possess only such a rudimentary consciousness as that now analysed.

CHAPTER III.

THE TIME-STREAM.

§ 1. Metaphysic, like Pure Mathematic, is fontal and pre-inductive.

§ 1. Philosophy stands to the sciences, taken together, in a very similar relation to that in which the science of pure mathematic, which includes geometry and calculation, stands to the rest of the sciences. This relation, speaking generally, is that of basis to superstructure in an ordered system of knowledge. The pure sciences of figure and number are sciences of those phenomena which are necessarily involved in all concrete figured and numbered objects. And metaphysic, which examines all experience subjectively, or *qua* experienced, examines our knowledge of all phenomena alike, including even those abstract figures and numbers, which the mathematician takes as necessary but objectively given data. I speak, it will be observed, of pure mathematic in its essentials only. At a developed stage of it, when means have been found of measuring time-lengths, pure mathematic deals with abstract Quantity or Magnitude, both continuous and discrete, of whatever kind and wherever found; a determination or character which covers one half of the whole phenomenal world, the other half being covered by its inseparable but contrasted opposite, abstract

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Quality, both terms being understood in the most general sense which they can bear, when taken as mutually exclusive, that is, when quantity is not considered as a special kind of quality, or as if *quality* was a term convertible with *nature*.

In another respect also, closely connected with the first, the procedures of metaphysic and mathematic are analogous. Inasmuch as both are fontal methods of knowledge, drawing their data from experience alone, without which they could not serve as the basis of other sciences, they both alike stand in direct and immediate contact with experience. For within themselves likewise they consist of basis and superstructure; and this basis is given by direct and immediate inspection of phenomena, its superstructure consisting of abstractions and inferences from those immediate inspections. Thus neither of them is originally an inductive science, but on the contrary both are analytical of immediate experience.

Induction cannot properly be identified with simple registration of experiences, or an appeal to experience alone. An inductive method is not the same thing as an experiential method; it is but a particular case of it. By *Induction* I understand that method of enquiry which studies the order of Real Conditioning and its laws, by means of hypothesis founded on experience, prediction of consequences, and verification by subsequent experiment or observation.[1] This method is necessarily subsequent to the acquisition of the ideas of real physical objects, of the order of real conditioning, and of

[1] W. Stanley Jevons. *The Principles of Science*, Vol. II., Chap. XXIII. *The Use of Hypothesis*, particularly pp. 131, 137, 140.

general laws to which that order conforms. It follows that the acquisition of these and similar ideas must be prior to the method of induction, notwithstanding that they are derived solely from experience by informal reasoning, in the shape of acts of attention, discrimination, comparison, grouping, and the like.

Thus the mathematician does not begin by collecting a number of instances in which a whole has proved to be greater than its part, in order to found upon them a generalisation that, in default of contrary instances, wholes are always greater than any of their parts. Simple inspection shows him, that extension involves divisibility, and thus gives rise to that conception of whole and parts, which the empiricist supposes him to have picked up ready-made from isolated instances, on which he then founds a generalisation. The nature and meaning of *equality*, and its essential difference from *inequality*, are originally discovered in the same way.

So also with the metaphysician. It is the process of experiencing, the original acquisition of experience in all its parts and kinds, which he takes as his *analysandum*, and like the mathematician he proceeds by inspection of the process. He cannot proceed by generalisation founded on induction, because to do so would pre-suppose some pieces of knowledge, I mean the particulars to be generalised from, already given and known, that is, experienced, prior to any experience being acquired. At the most, induction could tell us on what particular instances of experience our expectation of another particular instance of experience

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might be securely based. But this is not the problem proposed by metaphysic, which is the nature of the process of experiencing itself, and in its entirety, including the laws, postulates, and axioms, of reasoning and analysis, as well as those of perception.

Just as the pure geometrician, in order to ascertain the nature of a straight line, imagines or draws one,—that is to say, fixes on some point in space, and then either himself moves, or imagines another point moving, towards it, without any change in the direction of the movement so as to make it become, even for a moment, a movement towards any other than the point originally fixed on,—and then inspects what he has been doing, which gives him the nature of the line, so the metaphysician, wishing to ascertain the nature of experiencing, repeats the process, either in imagination or in the concrete, and then describes to himself what he has been doing, which gives him the nature of the process. One instance suitably selected, and freed from irrelevant matters, such as speculations about his own powers, for instance, is as good as a million; and a million, unless freed from irrelevant matters, would be no good at all. The whole validity of the ascertaining process depends, not on the number of the instances examined, but on the accuracy with which the exclusion of irrelevant matters, and the observation of relevant matters, have been effected.

Of course this supposes, in both cases, a vast amount of previous unanalysed experience, that is, experience clothed in common-sense forms. But in both cases also, and this is the point to be specially

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noted, the fundamental ideas both of mathematic and metaphysic are drawn, not from the common-sense forms in which experience is clothed, but from immediate experiences such as those which have gone to the making of them, which continue to be experienced after they are made, but which, up to the moment when conscious analysis in each case begins, have been unnoticed and disregarded. Conscious analysis of immediate experiences is the origin of both the pursuits in question, and to that analysis the ascertainment of their fundamental ideas is due. The experiences on which both are founded lie deeper and begin earlier in the conscious life of individuals than the empiricist imagines. They have accompanied and formed part of the process of experiencing which results in the perception of the common-sense world of persons and things, from the dawn of consciousness. The ideas which flow from them immediately cannot be derived from a result which flows from them remotely. Two and two do not make four because two eggs and two eggs make four eggs, but both propositions are true (1) because acts of counting can be attended to, and named by reference to their place in a remembered experience, and (2) because nothing but the act of counting makes number. You can have five for the counting, but not for the counting only two and two.

It is true that the metaphysician's processes, both of examination and of experiences examined, are processes within a single individual's experience, and may therefore conceivably be due, in their entirety, to the metaphysician's idiosyncrasy alone. This is equally true of the mathematician's

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processes. With both of them alike, the processes are subjective and individual. But there is another circumstance which constitutes a difference, and one entirely in favour of the mathematician; and it is this, that in his case the object selected for examination is restricted to two kinds of features in experience, figure and number, and also that these are features which (as other experience shows) are unaffected by the various kinds of other features, the various sense-elements, with which they are combined, and from which they are selected, by abstraction, for examination. The metaphysician's object, on the contrary, though it be the common feature in all experience,—being the act or process of experiencing,—cannot be assumed to be unaffected by the various contents to which it is common; but what belongs to it as process and what belongs to it as content must first be made evident, by analysis of some concrete case, in which content and process together are taken as the *analysandum*. And this is what I have been attempting in the foregoing chapter.

Again, figure and number are offered spontaneously, and are almost thrust of themselves, already abstracted, upon the pure geometer and the pure arithmetician, as Subject and Objects are upon the psychologist, by the common-sense form of experience. He sees and feels objects differing in size and shape from one another, he sees and feels objects, closely similar in kind, which are separate from one another, and yet constantly grouped together, the fingers of his own hands for instance. The notions of greater and less, of one and of many, are in this way all but offered to the senses.

He has but to take them up, as offered, into his mental laboratory, that is, to attend to his own acts of counting in some cases, of comparing sizes and shapes in others, acts which are the same in kind as those which have already entered, though not consciously differentiated or recognised as what they are, into the formation of common-sense objects, and which are therefore in both cases analytical of concrete phenomena, and enable abstraction to be made from their sense-content,—for all abstraction pre-supposes analysis;—and the science of pure mathematic is *ipso facto* originated and constituted.[2]

The calculation of abstract numbers, and the measuring of abstract continuous quantities by means of numbers, or units of measurement, are thus the common feature in all processes of pure mathematic, whereby it becomes the foundation for all concrete positive sciences, which are the more closely allied to it, in proportion as they approach more nearly to the ideal of mathematical exactitude. Accordingly I use the term *pure mathematic* to include (1) the study of abstract discrete quanta or numbers, and their relations *inter se*, whether approached directly as in Arithmetic, or indirectly as in Algebra, by means of general numerical descriptions, expressed by symbols which may turn out to have no arithmetical number corresponding to them, (2) the study of abstract continuous

[2] See on this whole subject Herr Professor Wundt's valuable paper *Über die Mathematische Induction*, in his *Philosophische Studien*, Vol. I., pp. 90, et seqq., especially Sections 4 and 5. When Professor Wundt touches on the synthetic character of addition, as in 7+5=12, it should be borne in mind, that every judgment is synthetical as a psychological process, and every judgment analytical as a form of knowledge. The evidence for this statement will appear as we proceed.

quanta of space, with their boundaries and figurations, and (3) the study of abstract discrete quanta or numbers together with, or in application to, abstract continuous, or continuously varying, quanta of any kind, as in both the lower and the higher Algebra, but apart from any direct application to physics, or any kind of concrete objects.

But the feature or features common to all cases of experience, or experience simply as such, are not offered in the same obvious way to the metaphysician, as abstract quantity and number are to the mathematician. He has to obtain them by an analysis of concrete common-sense experience which does not stop short at the discovery of abstract quantity and number. Neither are they indicated to him by any special practical interest, or indeed by any interest short of the desire for knowledge on its own account. His task is much more difficult, because much more complex and comprehensive. He has first to detect by analysis the features common to all kinds of experience alike, then those common to experiences of special kinds only, and then to analyse and ascertain their relations one to another, when detected. Hence the chances of error are enormously increased, and also the chances that his reading of the phenomena will differ from those of others.

That his own particular common-sense experience, which alone he can directly analyse, is partly the result of induction proper, or in other words, that strictly inductive reasoning (in the sense adopted above) has contributed largely to build up his common-sense conception of the world, does not show that his method of dealing with that form of

experience is inductive. Analysis as well as induction is experiential. If he goes wrong, his error lies in his idiosyncrasy, and would doubtless be repeated in all the cases of experience which he examined, however numerous. It would therefore be mere affectation, giving an illusory appearance of accumulating evidence, to multiply instances in an exposition like the present. Before proceeding, however, to the examination of more complex cases of experience, I will draw one or two conclusions from those we have already examined, with reference to their bearing on the fontal and pre-inductive character of metaphysic.

The two experiences we have examined, those of note C and the sequence CD, give us a perception of the concrete stream of conscious experience occupying time. The time-stream is not marked out into past and present portions previously to being perceived, but its divisions are perceived in and with the first knowledge which we have of it, as part and parcel of the stream itself. For these divisions are nothing else but perceived differences of the specific quality in the sensation contents by which it is occupied, or which fill its otherwise pure duration, and one of which grows fainter at or before the moment when another makes its appearance above the threshold. It is indifferent whether we say that we perceive a difference between two successive sense-contents, or that we perceive two different sense-contents in succession. Time-duration and time-sequence are perceived in both cases alike. This is obvious in the latter way of expressing it. If, however, we say that a difference is what we perceive, then the duration and

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sequence are either constituted by a portion of each of the two different contents, considered as divided only by a mathematical instant of transition, or they are attributed to the difference itself, in saying that it is empirically perceived. For it is impossible to perceive a difference between successive contents without perceiving something of the contents themselves, which, in order to be perceived at all, must have some duration ; and if we speak of the difference as being perceived alone, then we are *ipso facto* giving it a content of its own, and therefore also a duration, and a place in the sequence. But within the limits of a single content, or single difference between contents, there is no other specific mark of time-sequence, than the decrease of vividness which accompanies its passing from the state of presentation to that of retention, representation, or memory in the sense of retention ; unless it be the increase of vividness which accompanies its attainment of a *maximum* of vividness in presentation.

The fact of lapse of time, or process, in conscious experience, is thus not an assumed but an actually perceived fact. The infinitesimal sub-divisions of the mathematical calculus do but repeat this experience in abstract scientific imagination. The sub-divisions of the calculus are confessedly not the primordial elements of things ; so neither are they the primordial elements of consciousness. Consciousness is not given to us in isolated atoms. Its simplest portion is a complex state, its smallest portion is a process.

But English Empiricism has raised a dust about these matters, which has long hindered us from

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seeing facts as they really are. English empiricism erects a misunderstood dictum of formal logic into an *a priori* dogma concerning the nature of consciousness. Holding, as against the Scholastic Realists, that logical "particulars," τὰ καθ' ἕκαστα, are the data of all generalised knowledge, it insists that all knowledge, in its most rudimentary state, comes to us originally in the form of "particulars," that is, isolated atoms of consciousness, for which a nexus must be sought elsewhere, that is, independently of the atoms themselves. It does not see that, though "particulars" may be regarded as atoms, that is, each as a single individual apart from the rest, yet they are as much a product or creature of logical thought, as "generals," τὰ καθόλου, are; both alike being derived, not from "particulars" again, but from *perceptions*, that is, from the concrete stream of consciousness, which is, in its lowest terms, both when first known to us and always, a nexus of perceptions. English empiricists thus corrupt philosophy with an *a priori* logical dogma; an error precisely parallel, though opposite in direction, to that of supposing that logical thought produces or creates the perceptions which it generalises.

Following this false clue, empiricism proceeds to compare and classify its supposed isolated atoms of consciousness; it groups them under separate heads, as facts of sensation, facts of perception, facts of pleasure and pain, facts of memory, facts of association, facts of imagination, facts of thought, facts of will, facts of emotion, and so on; and invents, by an immense expenditure of labour, what it thinks are the several psychological functions

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of a *That which* is the hidden source of their nexus; little dreaming that all this labour is spent in vain on a gratuitous fiction of its own. The gulf created between the particulars, simply as supposed facts, is immensely widened and deepened, when it is considered as a gulf existing between well marked kinds of facts, belonging to sharply differentiated functions of an impalpable agent. The problem of memory among others is in this way brought to swarm with contradictions, and its solution rendered impossible on empiricist lines.

I do not say that the facts of consciousness cannot be conveniently grouped under such heads as those I have mentioned; but I say that, before they can be so grouped, they must first be examined from a purely subjective point of view, that is, as they are actually experienced, and that the common features which are disclosed by that analysis must be laid at the basis of their grouping into classes, by observation of their specific differences from one another. The reason for this is, that, unless we do so, we substitute an hypothetical nexus, drawn from the hypothesis of a Subject with particular functions, for the real nexus which subjective analysis discloses. Two strands, so to speak, of this nexus have been already disclosed by the analysis, so far as it has gone at present, time, and memory in the sense of retention, or continuity in the form and continuity in the content of consciousness; and more may possibly be disclosed as we proceed.

To assume at this stage any other nexus than that disclosed by the analysis would be an hypothesis alike unwarranted and unwanted. The

need for one can at this stage be felt only because of the fictitious dogma of isolated particulars. For isolating them brings them out of harmony with an universal fact of common-sense experience, namely, that they are as a fact connected parts in the experience of single individuals, as understood by common-sense. The isolating dogma, therefore, forces us to an hypothesis prematurely, namely, to the hypothesis that, behind the scenes, as it were, they are held together by some immaterial and indivisible unit, or active unity, which overcomes their isolation and establishes their continuity. The concrete or empirical individual, as known to common sense, cannot be the agent required, since he is himself an object of empirical experience, and as such must likewise be conceived to be composed of isolated particulars, the nexus of which is equally wanting. Gratuitous and indeed unintelligible hypothesis is thus the necessary consequence of bad analysis; and thus also it is, that English Empiricism plays into the hands of Kantian Transcendentalism, namely, by requiring some transcendental hypothesis to establish a nexus between its isolated atoms of perception.

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§ 2. I proceed, then, in the next place to imagine a somewhat more complex case of experience, by combining additional circumstances with the experience of the sequence CD already analysed. Let us suppose that, while the notes of the sequence CD are being struck, some one pokes the fire, and that the sound made by poking the fire is heard simultaneously with the sequence CD, having its beginning and end co-incident with those of the sequence. And let us call this new sound P.

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In this experience we have a perception with a complex content, three sounds different from each other, and together occupying one and the same duration. I need not stay to analyse the specific quality of the sound P, whereby it is perceived as different from the notes C and D. It is the overlapping of C and D by P to which I would call attention; I mean the perception of P overlapping the end of C and the beginning of D, the duration occupied by the three, taken as the content of a single but complex perception, being one and the same. What we have before us here is the perception of two threads or sequences of feeling, one of them, P, undivided by any specific difference within itself into former and latter portions, the other, CD, divided into a former part C and a latter part D, which two taken in sequence occupy the same duration as P, that is, are perceived simultaneously with it. If we may again use the spatial image of a rope of many threads to picture consciousness, we may speak of the threads as running parallel, instead of the sequences taking place simultaneously. CD is part of the context of P, and P is part of the context of CD.

Now this is a perceptual experience which includes memory, in the sense of retention, but still excludes, as before, conception and conscious comparison. What we have in it is the perception of continuous change or process, given as a fact. Not that it is here recognised or classed as what it is, which would require the intervention of conception and conscious comparison. But we here find in actual experience what we afterwards describe as the fact, that consciousness is composed

of various feelings, the durations of which overlap each other. C begins and ceases, and then D begins and ceases, while P begins with the beginning of C, and ends with the end of D. That is to say, P is perceived as occupying one and the same duration of time as the whole sequence CD, which fact we call their simultaneity. Without the perception of the oneness of the duration occupied by both P and CD, the perception of their simultaneity would be impossible. Moreover, since the parts C and D are a sequence, C passing into memory or representation when D begins as a presentation, therefore P also with its duration is perceived as passing away; that is, as having two parts, a former and a latter, though these would have been undiscriminated of themselves, the former of which is simultaneous with C, the latter with D. The duration of P, therefore, as a whole, is perceived as belonging partly to the present, partly to the past; and it must be remembered that we have no other means of dividing and measuring duration, than differences in the feelings which are its content.

But this phenomenon of overlapping is not an exceptional or even a merely frequent case; it is a constant fact universally met with in experience, and in all kinds of feeling. Consequently we are compelled by the facts of perception to conceive, that the duration of every content of consciousness, simple or complex, passes away into memory along with its content, and is no fixed form or measure, filled by a fleeting content, which for a brief moment, the empirical present, is arrested and retained therein; or in other words, is no form or

measure, existing separably from, or prior to, its content, feeling, and into which feelings must be brought in order to their being perceived. Duration and content are inseparable, arising together in consciousness, and together passing away into memory.

The opposite conception, of fixed moments of time, wherein the flow of feeling is momentarily arrested, and in the succession of which time itself consists, is rendered possible only by the empiricist fallacy of assuming the actual separability of all things for which there are separate names; these things in the present case being a time-duration and its content of feeling called a sensation. Experience gives no warrant for any such conception. In experience as it actually occurs, time-duration filled with feeling is perceived as filled with simultaneously existing and overlapping feelings, each of which occupies a certain part of that duration, and is relieved, as it were, against other feelings occupying other parts of the same total. The number and the complexity of the feelings which for any given time, or at any given moment, are simultaneous with one another, are facts composing the content of the whole perception, and are indifferent to its duration. They are facts which come to light by taking what I have called a transverse section of the perception, when we arrest it artificially for examination. Their overlapping on the other hand is a fact of immediate perception.

Every feeling, therefore, including its duration, must be conceived as having its beginning prior in time to its end, that is to say, as passing, or as a

process. Duration does not mean standing still. Moreover, within every feeling called one and the same with itself, minute differences must be imagined, which need not be more than differences in degree of intensity; different moments succeeding one another, just as in the sequence CD, the parts of which are each singly perceptible. In thought we can carry this divisibility of a feeling *ad indefinitum;* but the point at which differences in the changing content are no longer sensibly perceptible, or at which the content is perceived as strictly one feeling, is soon reached, That is to say, we soon reach the empirical *minimum perceptionis* in respect of intensity of content, as before in respect of time-duration. And beyond this point, where changes in one and the same feeling become insensible, though we may still conceive changes in its content as possible, we must conceive them as possible only on condition of increased sensibility in the organ or organs subserving consciousness, or what is the same thing, as changes, in those organs, which are themselves below the threshold. This mode of thinking is a consequence of the facts of actual perception, which compel us to conceive every feeling as a process.

Yet the feelings which make part of a complex perception must not be thought of as appropriating each for itself exclusively a portion of the duration, so as to divide the one duration of the whole perception into several parallel or simultaneous durations. For this would be to import the spatial imagery of parallel threads in a rope, used only as an illustration, into our conception of the thing

illustrated, namely, simultaneity of feelings in time. Simultaneity means existing either at one and the same instant, or for one and the same duration of time. Strictly simultaneous feelings are those which exist for one and the same duration. The self-same duration may be occupied by many different feelings, some of which may be simple and others complex. Feelings which overlap, but the beginnings and ends of which do not coincide, are only partly simultaneous. Thus C and D are each partly simultaneous with P; the sequence CD is strictly simultaneous with it.

These facts taken together constitute what is called the empirical continuity of the complex stream of consciousness, as a fact not of inference but of perception. I have indeed employed inference in proving it to be so; for the fact has been overlaid with assumptions, and it was necessary to clear it. But in perception the doubt whether feelings, which perceptibly arise and pass away into memory, may not be made up out of imperceptible parts, which for certain brief durations called present moments do not pass away, does not arise. Their overlapping is perceived; and the perception of overlapping is the perception of the empirical continuity of the whole. And for certain large portions, such as those which constitute single periods of normal waking consciousness, this continuity of the time-stream is never broken, because, at whatever point we select in it, we always find that some feeling has begun before some other feeling ends. The duration common to all feelings is what we know as Time, which may therefore with strict propriety be described

as the *duration of empirical change*, or the *duration of process*.

The term *empirical* contains the key of the position. It is in process or in change, as actually perceived, that time-duration is perceived as an inseparable element in it. Change cannot be perceived without our perceiving at least two different contents, a former and a latter, though the exact point of transition between them may not be precisely determinable. The idea of a precise point of transition pre-supposes the perception of change. But the perception of change does not pre-suppose the idea of a precise point of transition. Such a point cannot be either perceived or thought of, without our perceiving or thinking of an empirical change. When such a point is thought of only, it is what is called a mathematical point or division of time, and as such has no duration. It does not exist for even an infinitesimal moment. No number however great of such points put together, that is, imagined in immediate sequence, can compose even the briefest moment of time-duration. Indeed to imagine them in strictly immediate sequence is impossible; for sequence means only sequence in time, and therefore to imagine one point or division of time sequent on another is to imagine some time-duration between them (otherwise they would not be *two*), which contradicts the idea of their sequence being immediate.

To identify or confuse empirical change with the precise moment of change mathematically taken is therefore a gross fallacy, which is not made more acceptable by the fact, that it is the parent of a numerous progeny. It re-appears in the case of

motion, which is a kind of change in which both time and space are involved. And with regard to space and its geometrical divisions, points, lines, and surfaces, a precisely parallel fallacy is met with. The whole group are a striking instance of that tendency of common-sense thinking, not only to endow abstract thought-entities with perceptual reality, but also to conceive them as the real but noumenal conditions of perceptual realities themselves.

Few terms in philosophy are used in a greater variety of significations than the term *Time*, and since it is at once one of the most familiar, as well as one of the most fundamental, of all our ideas, the ambiguities and differences of opinion to which it gives rise are, as may easily be imagined, almost ineradicable. Time described as above, the *duration of process*, is time as object of reflective perception, the distinguishable but inseparable co-element with feeling in every perception, and common to all. It is duration, but duration of a process; for the co-element of feeling, which together with duration constitutes an empirical percept, involves variety or change in the ways we have seen above. The duration itself, as we have also seen, is affected with the change or flux of its co-element. Time as the co-element of feeling in perception is the earliest and simplest form in which we know it, the origin of all our further knowledge about it, the source from which all the other significations given to the word are derived.

First among these other significations comes time in the abstract, or as an abstract notion, treated as if it could stand alone, and in the

simplest sense of duration. In this sense it is indifferent to change and unchange, but at the same time it is an *ens imaginarium*, a creature of abstract thought treated as an empirical thing, and is imagined as a sort of unilinear medium in which all changes take place, and all unchanging states exist.

Next comes the sense in which time, besides being treated as an empirical though abstract thing, is also treated as itself changing or varying, though with an unvarying rate of change. This is called "absolute time." It is said by Newton to "flow equably," and its equable flow is made to serve, in mathematic, as a standard of meaurement to which other variations are referred.

Thirdly we have *time* used in the sense of an order or series of empirical occurrences considered as discrete and successive; as for instance, the succession of day and night, the seasons of the year, the ticking of a clock, the beating of waves on a beach. This I apprehend is what Wordsworth means, when he speaks of "doleful time," and of the possibility of regions "where time and space are not"; and Aristotle, when he calls it the "measure of motion."

Fourthly we have *time* used as if it meant, not a succession of empirical occurrences, which may or may not include intrinsic change, but the abstract relation of succession between empirical occurrences, each of which is taken as unchanging for a moment at least, and has its beginning and end simultaneous. These occurrences are called present moments, τὰ νῦν, and the relation of succession between them is time in this fourth sense.

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It is, I think, sufficiently plain, that all these four senses of the word *time* are derived either by way of adding something to, or by way of taking something from, the perception of feelings in duration, which is the experience which gives us time in the first sense, as duration of process. This perception is the first thing in our knowledge, its ultimate origin, and therefore its final test, the γνώριμον ἡμῖν, upon which all our ideas in this matter are suspended. The conception of time in the sense of duration of process is founded on simple analysis of perceptual fact. Time and feeling are the distinguishable but inseparable elements of the process called perception, taken in its lowest terms. Time is not perceived before or apart from feeling, nor feeling before or apart from time. It is only by abstraction, by thought supervening on perception, that the two elements can be sundered, and that only in the objects which are so treated, not in the thinking process itself. There is no other way but abstraction to sunder them, because there are no other facts but perceptions to go upon.

§ 3. Memory Proper.

§ 3. The foregoing Section has shown how the varied contents of an empirical present moment, wherever it may be taken in the time-stream of consciousness, together form part of a single concrete process, transverse sections of which, as a concrete whole, can only be taken arbitrarily. By the arbitrary character of a transverse section is meant, that such a section is never a datum of perception, but must be introduced by thought. Any such section will always be found to divide some contents in their midst; that is to say, some feelings will have been already in consciousness at the instant

which is called the beginning, and some feelings will continue in consciousness after the instant which is called the end, of any empirical present moment, and therefore of the whole transverse segment which the duration of any particular feeling is employed to determine. We have also taken an empirical present moment to consist of feelings which are present once only, namely, from their first arising in consciousness to their first disappearance from it; from their being first perceived to their being first forgotten. Presentation and representation, or memory in the sense of mere retention, have been alone included in the empirical present, so far as we have hitherto examined it.

But it will be remembered that much more than this was included in the experience retained for present analysis at the beginning of § 2 of the preceding Chapter. Memories in the usual sense of the word, or memories proper, were included in it, though only in their relation to an empirical present, not in their relation to the common-sense objects or events of which they are said to be memories. Now the term *memory*, in this its proper and usual sense, implies previous oblivion, or disappearance from consciousness; that is, implies recurrence in consciousness of a forgotten content, or occurrence of a content with (at least) spontaneous recognition of it, as having occurred before. This phenomenon, this feature in empirical present moments of experience, we are now in a position to examine, owing to the previous steps of our analysis, particularly the last.

The phenomenon of memory proper, distinguished from mere retention by the circumstance

of recurrence, or apparent recurrence, of a content previously experienced and then forgotten, is what I now take for analysis. And I take it in its lowest terms. That is to say, I take those cases of it, in which the recognition which it involves is spontaneous, not dependent upon any conscious act of attention, comparison, or thought. These cases it is which are the basis of all the rest, supplying as it were their material, inasmuch as they contain the first or simplest perception of facts, which alone enable us to explain or understand those more complex cases in which (after the acquisition of common-sense forms of thought and speech) we describe ourselves as being distinctly aware, that we have felt or met with such and such a content, thing, event, or person, before. The point now to be examined is,—How does any part of a present experience appear as a recurrence, that is, appear to have also made part of a past experience; or, What are the features in virtue of which it appears as a past in the empirical present? The truth to real fact of appearances of this kind, or even the possibility of their corresponding to real fact as distinguished from consciousness, and so being valid evidence of particular real experiences, events, and objects, in the past, is not now in question. From questions of this kind we must still continue to abstract, until the meaning of *reality* as distinguished from consciousness, and therefore of *consciousness* as distinguished from reality, has been to some considerable extent ascertained. It is simply with the entrance of memory proper, or recognition of a past, into empirical present moments of experience, as part of their content, thereby indefinitely

enlarging the field which those present moments embrace, which is the field of experience, that we have now to do.

Again, then, I take an instance from the common-sense form of experience. I am sitting, let us suppose, in my room listening to the wind roaring in the branches of the trees outside my window. Suddenly I hear voices singing the first verse of *God Save the Queen*. Presently they die away, and (let us suppose) in two minutes both tune and words have passed away from my consciousness altogether, and are forgotten; the roaring of the wind continues. Then, however, at the expiration of the two minutes, I hear what we call the same voices singing another verse of the same tune;—suppose as they repass my window on their rounds. At once a representation of the first verse, with its context the wind, arises in consciousness, along with the presentation of the second verse in the same context. This latter consciousness, namely, the presentation and retained presentation of the second verse, with that of the wind, is now the empirical present; and this empirical present also contains a representation of my having heard the first verse, some two minutes previously. Such is the experience, described in common-sense terms, of the empirical present moment, taken as commencing after the expiration of the two minutes. The question is, What features in this present experience lead me to consider one part of it, the hearing of the first verse, as belonging to an experience which was actually present but is now wholly past, as well as to the experience of the actually present moment,

after having been absent from consciousness during a certain interval?

The example stands for cases which are so simple and so familiar, that many persons might be tempted to say, it carries its explanation in itself, which is, that we remember the first verse as having occurred previously to the second, because we actually experienced it previously. But this would be a total mis-conception. It assumes the actual previous experience of the first verse as a fact, and it also assumes a knowledge of the possibility of such a fact on the part of the remembering Subject. Whereas the whole gist of the question is, how we come by the knowledge at all, or, in general terms, what evidence a present moment of experience can afford for the past experience of any fact not contained in that present experience as an actually present part of it; and therefore, in the present case, for the hearing of the first verse having been a presentative experience in the past. It is inadmissible to assume its real occurrence, and still more to assume that the remembering Subject is already aware of its possibility.

Others again might be inclined to suppose, that the way to arrive at an answer to the question lies through first establishing the reality of a permanent Subject of consciousness, or of a permanent Thinking Power, and thence deducing the idea in question, leaving the confirmation of this hypothesis, and the validity of the explanation founded on it, to future experience. But this method would be equally hopeless. For the idea of a permanent reality of any kind pre-supposes the ideas

of a real existence which is not actually present in experience, and this idea arises only in and with the phenomena of memory proper, which are now under analysis. Apart from these phenomena, the idea of a time, or anything else, not belonging to an empirical present moment, is non-existent, unless by a further assumption we endow our permanent reality with it, as an *a priori* idea. It is these very phenomena of memory which originally suggest it. The only question is, How?

Returning, then, to the phenomena simply as phenomena of consciousness, and putting aside the question of their real genesis, or the real agents at work in supporting or producing them, a short scrutiny will suffice to reveal the secret. The empirical present moment which we are examining, taken as beginning at the expiration of the two minutes, is an experience parallel to that of the D in the P C D of the foregoing Section, only somewhat more complex. The place of P in that experience is here taken by the roaring of the wind, which at the moment when the sound of the second verse has quite died away is still a presentation, but one the earlier parts of which are retained in representation, and therefore one which as a retained presentation goes back beyond the commencement of the second verse, beyond the commencement of the two minutes' interval, and also beyond that of the first verse, now present as a representation. The retained presentation of the wind is continuous with its actual presentation, at the moment when the second, or now present, moment of experience expires. And also as retained that is, as a presentation, it fills up the

interval between the pure representation of the first verse and the retained presentation, or representation, of the second verse. It is in fact a continuous experience, at some times accompanied at others unaccompanied, by a context, and so serves to bind together whatever contexts accompany it into a single experience. What those contexts are, in the case now supposed, is the point we have to determine.

The question can plainly be answered only by analysis of the empirical present moment which contains the retention of the second verse of *God save the Queen*, and its context the roaring of the wind. Now this moment also contains a representation of the hearing of the first verse; but how does this show, that the first verse has been heard previously to its appearing as part of the content of the present moment, or is a representation of what has once been, but is no longer, a presented content of consciousness? Why should not that which we call the remembered presentation be a mere appearance or illusion created by, and belonging solely to, the now present moment of representation?—In this way, and for this reason. The first verse appears in the present moment, not only in two characters, but at two separate places of what also appears in that moment, on another ground, namely, the continuous roaring of the wind, as a single experience, and one which continues to appear as a single experience when the now present moment becomes itself objectified as past. I mean, that the first verse appears in the present moment both as a representation following the hearing of the second verse, and as a repre-

sented content preceding the hearing of the second verse, and separated from it by an interval filled by the roaring of the wind. One and the same content, the first verse, has two different time-locations in one and the same connected experience. This doubleness of time-location of one and the same content is the decisive circumstance. But other circumstances concur.

In the second of these locations it is a content of representation, in the first it is object as well as content of representation. Moreover as represented object it is represented as a presentation first retained and then ceasing, while, as a content belonging to the present moment, it is a pure representation. But we first recognise, or become distinctly aware of, this double location of the content, and of the different character attaching to it in each location, only as the experience proceeds; that is to say, in the immediate sequel of what we have called the present moment, as it recedes into the past. I mean, that the content of that immediate sequel is or includes an awareness of the present moment immediately preceding it, both as a representation and as a representation of its own content as a separate and prior presentation. In fact, owing to the continued presence of the common context, the wind, both the representation and the content which it represents as a presentation form parts of a single experience, notwithstanding that the presentation which is represented has dropped entirely out of consciousness for some time,—the two minutes,—before the occurrence of the representation or faint duplication of it in what we have called the present

moment. And this distinct perception of the two moments, the represented and the representing, being separate parts of a single experience is incompatible with the idea, that the latter moment is in reality creative of the former moment along with its presentative character, so reducing its real occurrence to the rank of an illusory appearance. In short it precludes the topsy-turvey idea, that empirical presentations depend for their existence on empirical representations, with its corollary, that perception depends for its existence on thought,—instead of *vice versa*.

I have called the double time-location of one and the same content the decisive circumstance. But of what is it decisive? It is decisive of the true conception of memory proper; being that feature in its analysis which, in combination with the previously demonstrated reflective nature essential to all consciousness, accounts for its otherwise paradoxical character as a mode of knowledge immediately intuitive of the past, that is, on current ways of thinking, of the non-existent; notwithstanding which paradoxical character it was found theoretically necessary to assume its validity in normal and rudimentary cases, since without that assumption no connected chain of experience, no idea of any really existing object beyond the empirical contents of consciousness from time to time present, could be thought of as true, or their objects as real. The necessity for basing all connected knowledge upon an assumption, and that the assumption of a paradox, namely, the paradoxical character of memory proper as a psychological function, is removed by the analysis now

given of it as a process of consciousness; since that analysis shows at least the possibility of a content, which *in præsenti* is known only as a representation, having been real in the past as a presentation; the fading of presentations into unconsciousness being a fact which is known to be real from single (though not simple) empirical moments of consciousness, and both the fading of a presentation and its representation at a subsequent moment being exhibited, by the analysis, as moments belonging to a single chain of consciousness, which as a whole is a case, not of memory proper, but of memory in the sense of retention simply. In short the validity of memory proper is shown by including instances of it, as parts of wholes, within instances of memory simply in the sense of retention; in which sense, as we have seen, it is involved in every instance of sense-perception.

It is thus plain, I think, how experiences, which we unhesitatingly assume in common-sense thought to be experiences which have really occurred in the past, (the first verse of *God Save the Queen* in the present instance), have come originally, and prior to common-sense thought, to be considered as belonging to a portion of wholly past time, solely on the evidence contained in actually present empirical moments. The evidence consists in the present representation of a continuous content of consciousness, stretching indefinitely backwards in retrospect, and accompanied at intervals by various other contents of consciousness, to which it serves as common context. Nothing has been appealed to, save the experience of an actual empirical present, and yet we see how the idea of a real

experience which is wholly past, or what is the same thing, of a time wholly past filled with a real content, arises, not by inference, but without any conscious activity, sense of effort, question, or purpose, inevitably and spontaneously, from facts which are wholly contained in an actually present experience. I mean, that the idea is in no way founded on the assumption that the experience now called past was real, but on the contrary is itself the first intimation we have of the possible reality of a past experience, the first arising of a knowledge of experience as past, or with the marks of belonging to the past about it.

It must be observed, however, that I avowedly take an instance of the simplest possible kind, namely, one in which the overlapping feature, the common context connecting present with past, is a retained sense-perception (the roaring of the wind), and not a pure representation, or series of pure representations, or any kind of content, *e.g.*, emotion, which may be bound up with them. I do so in order to avail myself of terms, the meaning of which is already ascertained by the previous steps of the analysis. But nothing essential to memory depends upon our selecting sense-perception as the common context, or nexus of a present with a past experience. The fact of remembering may itself be remembered. For instance, the present representation of a past sound, which we have just been analysing, is, as such, an actual experience, and we may have a representation of it, connected with it as a previously experienced representation by a common context of actual experiences of any kind.

Suppose, for instance, that while I am still remembering the hearing of the first verse of *God Save the Queen*, the thought of *Rule Britannia* occurs to me, and before I have ceased to think of *Rule Britannia* a knock at the door is heard, and the thought of a friend occurs, whom I was expecting to call upon me. The friend is one with whom I am accustomed to go to musical entertainments, and the thought of him brings back the representation of my hearing the two verses of *God Save the Queen*. I am now not only remembering the hearing of the first verse, but also remembering that I have remembered hearing it. And the common context connecting the actually present moment with the hearing of the first verse has now become a somewhat lengthy chain, chiefly consisting of pure representations. In this way all actual experiences, which are or have been connected together by overlapping or common contexts of experience, form a single chain of states revived or revivable in the consciousness of a present moment. All of them, in fact, are cases which fall under the reason of the case which has been here analysed, that is, are cases of memory proper which are covered by that analysis, provided they belong to a series or sequence of process-contents of consciousness which remains throughout actually unbroken. I shall therefore say no more about them here.

It is different with cases, which are also usually and rightly classed as memories, but in which an actual interruption of the stream of consciousness has occurred between the representing memory and the experience represented by it. Before

representations belonging to this class of cases can be rightly apprehended by the experiencer of them as memories of past experience, some reasoning process involving purposive attention, comparison, and inference, must have been included in actually present moments of his consciousness, showing how the interval or intervals of interrupted consciousness have been filled, and exhibiting the representations as true continuations of the experiences which they represent, notwithstanding the total interruption of consciousness which has actually occurred between them. Instances of the kind intended are where we to-day remember as ours the experience of yesterday after a sound night's sleep, or where we remember in middle life the long past experiences of childhood. Inference is involved in the first appearance of these representations in the character of true memories ; but when once they have assumed that character, the process, which originally included inference, may and does become so abbreviated and facilitated by habit, as to appear immediate and spontaneous, just as in the simplest cases of memory proper, where the sequence of consciousness is actually unbroken. But to go into these more complex cases, in which inference is involved, would take me beyond the province of the present Section. The question of their validity will meet us again, at a later stage of our analysis.

One more point remains to be noticed, which perhaps may best be introduced in the form of an objection. Suppose, then, it should be objected, that the foregoing account is insufficient to explain the chief fact in the simplest case of memory

proper, like the one just examined, namely, the fact that what we remember in it is the presentative hearing of the first verse, that is, that we remember certain contents as presentations, whereas the proposed explanation accounts only for representations of them being brought into the present experience, though in the character of representations belonging to the past. Presentations and representations are, it may be said, unmistakably different experiences, unmistakably different in the felt quality of the sensation which they contain;—barring cases of hallucination, a phenomenon which of itself implies that radical difference between them is the normal case. And therefore any proposed account of memory, which does not account for the fact, that what we are said to remember we can remember as having once been a presentation, is totally insufficient, even as a merely analytical explanation of the phenomenon.

To this I reply as follows. The objection is only valid on the assumption that, in the simplest case of memory proper, taken by itself, that is, as a case occurring once, or for the first time only, such as the case which has just been before us, the felt qualitative difference between presentations and representations is already known and familiar, an assumption which is of course wholly inadmissible. The true state of the case is this. The representation, in the empirical present, of the first verse as belonging to the past, is in fact and implicitly a representation of it as a presentation, though not as a presentation explicitly distinguished from a representation. In order to our remembering or representing it explicitly as having

once been a presentation, we must first have distinguished presentations from the representations of them, in point of belonging, the former to time past, the latter to time present. And we have already seen, that only the first step towards drawing this distinction explicitly is given in the experience now analysed, which is one among the many instances on which that explicitly drawn distinction is originally founded. Just in the same way, experiences like that now analysed give us only the first step towards discriminating the felt qualitative difference between presentations and representations, which is so familiar to us in later experience. This is so because they are the first or simplest experiences in which presentations and representations are brought together in a manner admitting comparison, as presentations and representations of one and the same content.

Still even this statement of the case, it may possibly be urged, does not suffice to bridge the gulf, which in later experience we find existing, between presentation and representation, as kinds of experience essentially different in point of felt quality. It does not show how a representation can appear as a representation *of a presentation*, seeing that *ex hypothesi*, when it occurs, the presentation which it is supposed to represent cannot be compared with it (having ceased to exist as a presentation), and the identity of the two contents perceived in everything but in the difference of the felt quality. Or, otherwise stated, it does not show how a representation alone can ever give rise to the idea of an experience so essentially different in felt quality as a presentation undoubtedly is.

Now if this objection could be sustained, it would be fatal to many other things besides the analysis now in question. In being fatal to the trustworthiness of memory proper in its simplest form, it must be fatal to any philosophical theory whatever, since all connected experience, which is built on memory, would be thereby shown to be incapable of a rational explanation. But in reality the difference between the two kinds of experience, presentation and representation, is not so great as the objection supposes, not so deep as to amount to a separation. The gulf between them, if we are to speak of it as a gulf, has in fact been already bridged by showing, as it was shown in Chapter II., § 3, that every empirical perception, even the simplest sense-presentation, is a retained perception, that is, a rudimental memory, a representation as well as a presentation. What our analysis has done, since that point was established, has consisted simply in showing the steps in actual experience, whereby what is implicitly contained in the simplest perception is differentiated, and perceived explicitly as an actual experience containing both pure representation of a past and retained presentation of a present. In this way of regarding it, the difficulty is to see, not how a pure representation can be representation of a presentation, but how, in the simplest cases at any rate, it could possibly avoid being so. If on the other hand we regard presentation and representation as two different psychological functions, and consequently regard presentations and representations *ab initio* as empirically separate, then the gulf between them (so to call it) continues

unbridged, the problem of memory unsolved, and a rational explanation of experience is thereby precluded.

In complete accordance with this view is what has now been shown, in the instance of memory proper just examined. In a retained presentation where the presentation is brief, as in note C, or D, we are really representing it for a brief period after it has ceased as a presentation; and here we hardly ever distinguish the representation from the presentation at all, but think of the whole as a presentation. In a prolonged case, like that of the wind in the present instance, where what we call one and the same presentation is continually renewed, we are really representing the earlier parts of the whole experience, while receiving new presentations of what is qualitatively the same sound; and here again we usually think of the whole as a single continuous presentation. Yet in both these cases there is, in the representative part of the process, what is really a representation of a presentation, and of one which has actually ceased to be presented. Or in other words, the presentative character of the past presentation is what is retained in (though not as) the representation of it. The mere fact of the continuance of presentative perceptions in memory, though with loss of the peculiar vividness of presentation, implies that they are still perceived as having once been presentatively vivid, just as they are still perceived as having once been actually present.

There is no reason why this relation between representation and presentation should cease to exist, when the presentation represented is repre-

sented as belonging to a time which is separated, by an intervening experience, from the representation of it in the present moment. It is simple fact that we do, and there is no reason why we should not, represent the presentative character peculiar to presentations, in representing the presentations themselves as belonging to the past. The generic sameness of presentation and representation, shown in Chapter II., § 3, as a fact of experience, is the bridge between them, when they appear as specifically different in later experiences.

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I propose at this point to make a short digression, for the purpose of facilitating the apprehension of what to many of my readers will be a novel method, by dropping for a time the thread of simple analysis of experience, and adverting, though very briefly, to the question of the real conditions which support the process of memory proper, an instance of which has just been analysed. This question covers what may be called the other half necessary to complete the picture of the process as a concrete and really existent whole ; and thus the view which I am led to entertain regarding it will be briefly indicated. But in doing this I wish to state most distinctly, as I am bound to do, that I bring forward these real conditions only by anticipation and provisionally, relying for the justification of them solely upon the future course of the analysis of experience taken simply as such, in the same way as it has been taken hitherto. At this point they can appear only as assumptions, and as assumptions I wish to treat them.

I assume, then, that the phenomena of sense-perception, presentation, retained presentation, representation, and memory proper, up to the point at which they have now been analysed, and taken simply as phenomena of consciousness, depend proximately for their genesis or appearance in the consciousness of an individual Subject, and for the course they take therein, upon that individual's neuro-cerebral system and its working, as part of a living organism in interaction with the forces of an external physical world. Some real agent or agency supporting them these phenomena of consciousness must undoubtedly have. And, for reasons which will appear as we proceed with the analysis of experience, I prefer the hypothesis now mentioned to that of any purely psychical agent or agency. Indeed, the very fact which I have just called undoubted, the fact that there is a real agent or agency supporting consciousness as it appears in the case of individuals, and also the fact involved with it, that its operation takes place in the opposite direction to that of consciousness as a knowing, a forward-going direction, not a backward-going one as that of consciousness seems to be in retrospection from the present moment, are facts which can only be established by the analysis of consciousness without assumptions. Except as facts of the common-sense sort, these are not facts which are *per se nota*.

For the present purpose, then, I distinguish provisionally two parts in conscious life as a whole, two processes concomitant to each other, and together constituting the whole concrete process of experiencing as a really

existent process ; one the process of consciousness or experience (which when taken alone seems to run backwards, inasmuch as it is experienced solely in retrospection from a present moment), the other the neuro-cerebral process upon which the former depends for its genesis, and for the order in which its several states or process-contents occur. This latter process is always conceived as advancing in a forward direction ; and the process of consciousness or experience, when conceived as concomitant with and dependent upon it, is also conceived as advancing in the same forward direction, and then appears as itself an existent, a character in which it is contradistinguished from itself in its other character of a knowing, or as experience simply.

Consider the matter thus. If, after attaining the conception, that a series of states of consciousness depends upon a series of parallel changes in the neuro-cerebral system, as part and parcel of a world of material objects, we place ourselves in imagination at any present moment of experience in which we both look back upon a series of remembered states, say the experience of the previous half-hour, and at the same time imagine this series connected with that of changes in our neuro-cerebral system, upon which they have depended for their occurrence, two things will be noticeable. First, the series of remembered states, taken by themselves, will appear to have been receding into the past from the present moment, which is at the end of the supposed half-hour. Secondly, this same series of states, taken in connection with the neuro-cerebral changes on which they depend, will

appear to have been advancing up to that same present moment, from the point of time which is at the beginning of the supposed half-hour. And the same two-fold appearance will continue, if we suppose farther, that the present moment, from which we look, itself advances with successive increments of experience. The same series of states of consciousness, always seen from a present moment, will always appear to be moving in two opposite directions at once, retrogression and advance. What is the reason of this double and apparently, at first sight, contradictory appearance?

The reason is contained in the facts themselves. Present moments of consciousness belong, equally and at once, both to series or contents of consciousness and to the Subjects or Percipients of them. But the question is, how present moments of consciousness become capable of detachment (in thought) from the series of states of consciousness to which they belong, so as to be capable of being attributed to real Subjects or Percipients, as moments of their conscious life, moments moreover which in themselves are indifferent to any particular content, as well as being movable (as it were) from point to point along the series. Now this detachment (in thought) of present moments from their own contents, and from the series of those contents, is involved in the perception of the fact which met us when analysing time-sequences in a former Section (Chap. II., § 4), namely, that the retrograde movement of a series of contents of consciousness, and the forward movement of the present instants of origin in which those contents rise above the threshold, are one and the

same thing. It is here that the perception of the double movement of consciousness in opposite directions arises; and here also that the detachment begins of present moments of perceiving from their own contents, which present moments of perceiving are then taken as moments of abstract consciousness, indifferent to any particular content. For so soon as we have distinguished abstract present instants of origin from the contents, and series of contents, of consciousness which arise in them, we are at once forced to raise the further question, how such abstract instants of origin, or (what is the same thing) such moments of abstract consciousness, which *per se* have no content, and are therefore indifferent to the content which arises in them, can be conceived as possible.

An answer to this question is supplied by the conception, founded on inference, of real Subjects or Percipients, to whom the abstract present instants of origin, or moments of abstract consciousness, are conceived as belonging.

And this conception also removes the apparent contradiction between the two opposite directions simultaneously taken by one and the same stream of consciousness, by showing that the respects are different, in which the opposite directions are imputed to it. For when, having arrived at the conception of real Existents or Agents, we attribute to them the capacity of being conscious, that is, of feeling, perceiving, and so on, we both adopt *ipso facto* this abstract view of present moments, and also identify the direction in time taken by the real changes in real Subjects, upon which those

abstract present moments are conceived as dependent, with the apparent direction in time taken by those abstract present moments themselves, that is, the direction opposite to that of the series of states or contents of consciousness, along which, as present instants of perceiving, they appear to move.

Moreover the direction in time taken by the real changes in real Subjects or Percipients is the same as that taken by changes in the material world, of which they are a part. Hence it is, that the time-order of real conditioning always and necessarily appears to follow a direction opposite to that followed by the time-order of perception, which is the order of knowledge, and which (it is important to remember) is given by immediate experience, and in no wise depends either upon the conception or inference of real percipients, or upon the distinct awareness of abstract present instants of origin, or abstract moments of perceiving apart from their contents or percepts.

It should moreover be noticed, that the two opposite directions in time now spoken of are both of them contained in past and present time. I mean, that no reference to future time is necessarily involved in or suggested by them. But if we suppose the idea of future time to have been already acquired, as it must certainly have been acquired before we can attain the conception of real conditions, and therefore of Percipients; and if we bring the idea of future time into connection with these two opposite directions of experience in time past and present; then further peculiarities, not without special interest, will be disclosed.

In the first place, the future in the order of genesis or real conditioning, supposing us to look from a given present moment, will lie in the same direction as that same order in the past, of which in fact it is imagined as the continuation. Future real events, including the future occurrence of states of consciousness as existents, will then be thought of as consequences of, or as an evolution from, real events in the past, not as arising out of, or as coming to meet us from, an unknown reservoir or laboratory of fates or fortunes, called vaguely the future, or futurity. The idea of the future being the real source or determinant of events and experiences, which in common-sense language are figuratively said to meet us, and which we are said to face, in advancing into the future, must seek its justification, if at all, elsewhere than in the experiences now examined. I do not say that there are no grounds, from which we might infer the present and past existence of real objects and real events, which to us in our ordinary experience are future, and at the most not-yet existent; but only that such grounds must lie somewhere in the nature and laws of real conditioning, and not in the analysis of consciousness alone, apart from its real conditions of existing in individual Subjects.

If in the next place we turn to the future in the order of perception or knowledge, a different and it may be unexpected result awaits us. The so-called past of memory, anything whatever which has once been experienced, has possibly an endless future before it. It is a content of consciousness which is capable of retention, recall, and trans-

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mission to conscious beings, other than those who originally experienced it, and whose existence may lie at any epoch whatever in the real future, counting from the moment of that original experience. It will not cease to be past of memory; but, as a past of memory, it may continue to exist in times that are future in the order of real conditioning, times whose future presence is indefinitely remote. In thinking of it as having been we *ipso facto* think of it as in its own nature indestructible in the future; since we think of it as necessarily capable of being perceived, supposing there should be any Being or Beings capable, on their part, of perceiving and comprehending the whole content of that time, which to us is past and gone, in a consciousness which to them would be an empirical present. But to return to the main current of our thought, from these considerations which may, I fear, be only too justly regarded as a digression within a digression.

Consciousness taken as an existent is dependent upon neuro-cerebral processes which go on concomitantly with it, and pursue the same direction. When we ask, why it is that such and such a sense-perception occurs in consciousness at such and such a time, the answer is, because such and such a neuro-cerebral process has just taken place, or is taking place, at that time. When we ask, why such and such a representation follows that sense-perception, the answer is, because such and such a neuro-cerebral process follows the one which has supported it. The existence, and order of sequence and co-existence of states of consciousness, (not, however, their specific quality or *whatness* as ultimate elements of experience), are what this

hypothesis professes to account for. This it is, and only this, which is left unaccounted for, in the analysis of experience simply.

When, for instance, it is stated simply as a fact, as it was stated a few pages above, that, on the presentation of a particular sound, the representation of another closely similar sound at once arises in consciousness, the reason for this fact is to be sought, not in consciousness, but in the working of the neuro-cerebral system. And the reason is two-fold, (1) that the same part (speaking broadly) of the neuro-cerebral system is concerned in supporting both the presentation and the representation of both the sounds in question, and (2) that, this being so, the process which supports the presentation of the second (or recalling) sound sets up a process closely similar to that which had previously been set up by the process which supported the presentation of the first (or recalled) sound, and which had then supported its retained presentation. This closely similar process, now set up by the process supporting the second (or recalling) sound, is that which supports the representation of the first (or recalled) sound; and it is clear, that it will also support, along with it, the representation of the context in which it occurred, supposing that context to depend upon the same part (still speaking broadly) of the neuro-cerebral organism. That is to say, keeping to the instance analysed, the representation of a sound actually heard as a presentation simultaneously with our hearing the first verse of *God Save the Queen*, say for instance the bark of a dog, will accompany or tend to accompany the representation of that first verse.

The neuro-cerebral process supporting these representations is plainly different numerically from that which supported the presentations and retained presentations now represented. So likewise the representations supported are numerically different from the presentations and retained presentations which they represent. It is a mere blunder, caused by the looseness of common-sense thought, to suppose that one and the same experience is ever recalled or repeated. A numerical identity of two experiences, one past the other present, is a self-contradiction; an event of any kind once gone is gone for ever. But neither is their identity in point of content complete. Similarity of content between two or more experiences, so great as to render them undistinguishable except by the place which, owing to their context, they are perceived to occupy in a single series of experiences, is the utmost that can be meant by calling them identical. But this similarity in the process of consciousness, for the genesis of which neuro-cerebral processes are sufficient to account, is itself sufficient to enrich a present with the record of a past experience, by giving a localisation in the past to a content which is actually a present representation, in the manner set forth above.

We thus see, that even the simplest cases of memory proper are cases falling under the general head of *Association of Ideas*, for which it was, I believe, Sir William Hamilton who devised the admirable term *Redintegration*. This becomes evident so soon as we look at those cases on the psychological, as distinguished from the meta-

physical side; that is, so soon as we endeavour to connect them as experiences with the conditions of their genesis as existent phenomena. That memory is a case of association, depending partly at least upon the physiological Law of Habit, has been shown perhaps with the greatest fulness and clearness in recent times by Professor William James.[1] But whatever hypothesis we may adopt, the key to the whole subject lies in the fontal and governing distinction, between what consciousness is as a content of knowledge and what it is as an existent depending upon real conditions, which determine the genesis and order of occurrence of its states. The consideration of it under the latter head is the necessary complement to the consideration of it under the former. Why it is so can only be made fully evident as we advance. The great recommendation of the neuro-cerebral hypothesis, accounting under the latter head for consciousness as an existent in individuals, lies in the singleness of the agent, and in the closeness of the parallelism between the organic unity of its structure and processes, on the one hand, and the systematic coherence and inter-connection of the different states or process-contents of consciousness, which they condition, on the other. The functional continuity and interdependence of the various parts of the neuro-cerebral system are admirably adapted to render intelligible the fact, that sense-presentations are first received, then retained, then forgotten, then reproduced in representation, and that, in many cases, along

[1] *Principles of Psychology.* 1890. See especially Vol. 1, pp. 653 to 659, with the diagram there given.

with the context which originally accompanied them.

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Moreover, as a *vera causa*, the organic unity of the neuro-cerebral system stands in strong contrast with the alternative hypothesis of a purely psychical agent or agency, whether this is conceived as consisting in the unity of a bundle of functions developing in inter-connection with one another, or as a single function, *e.g.*, Thought, or Will, developing other functions, with their appropriate phenomena, either by way of logical intus-susception or otherwise. A bond between a number of different functions, which shall be purely psychical and efficiently real at once, must be difficult to imagine, difficult to verify. To do either is to me, I avow, not only difficult but impossible. I look upon the terms which we use to speak of such real functions, or bonds of unity, as common-sense terms which have survived all their philosophical or psychological meaning, if they ever had any. Consciousness is, in my view, the only thing which is at once purely psychical and real, and in consciousness I discern no efficiency, no evidence of its possessing what has been called 'psychical causality,' still less of its being *causa sui*. Here, then, I bring this digression to an end, and return to the analysis, at the point where it was dropped a few pages above.

§ 4. Sense of effort and perception of Future Time.

§ 4. The instances of experience hitherto analysed contain no indication of conscious reaction on the part of the Subject. No sense of strain or effort, nor any feeling which might be considered as the rudiment of a perception of activity, has hitherto been found either in the

content or in the process of perception. We have hitherto, in fact, purposely and in obedience to our method, abstracted from experiences containing feelings of this kind, and in the case of memory, in the foregoing Section, expressly excluded them from the perceptions analysed.

True there is every reason to believe, that a re-action on the part of the organism, in answer to stimulus, always takes place prior to perceptions such as we have examined, and forms a part at least of the real conditions upon which their arising depends. This re-action we may figure as a state of tension set up, in any neuro-cerebral organ to which a stimulus is applied, by an impulse or current proceeding from the central to the peripheral end of the organ. But a perception of such re-actions forms no part of the content of the perceptions which partly depend upon them. These perceptions may in one sense be called their representatives, not indeed in the character of being subjective pictures or aspects of them, but in that of being results immediately conditioned upon the total nerve process into which they enter, and therefore corroborative evidence for the fact of their existence. They correspond to them, but not as a knowing corresponds to a thing known. Perceptions of sound are not perceptions of physical vibrations, either in the environment or in nerve. Our knowledge of the existence both of air vibrations, and of the nerve re-actions which proximately condition the perceptions, is based upon inference drawn from subsequent, or, more strictly speaking, from different and more complex experiences than the perceptions themselves. And

this is true of sense-perceptions of all kinds taken singly, and also of any series of sense-perceptions which occupy time only. These re-actions, therefore, must be broadly distinguished, for the purposes of an analysis like the present, from those re-actions of which we seem, in common-sense experience, to have an immediate perception, in the shape of sense of strain, difficulty, or effort, however rudimentary or indefinite this sense may be. And in order to see what is involved in sense of effort, we must select for examination some instance, the simpler the better, which we may take as representing it in its lowest terms.

But it may be asked, Why this apparently arbitrary selection of the sense of effort as the next object of analysis? The most obvious answer would be, that the question has just been raised by our distinguishing, as we did in the foregoing Section, cases of memory proper involving inference from cases of it which, like the one there analysed, were purely spontaneous, and where the sequence of consciousness was unbroken. Now, when we ask, what inference is known as, the first characteristic to occur to us is the sense of effort which it involves, and this characteristic seems also to be universal and indispensable.

But there is another and more decisive reason, which may be briefly given by anticipation, and it is this. The sense of effort is the next great landmark in proceeding from the simple to the complex, starting as we have done, in examining the common-sense experience originally selected, from the analysis of an instance of simple sense-perceptions occupying time only. Barring sense

of effort and its derivatives, all process-contents of consciousness, whether simple or complex, and whatever their specific quality may be, I mean, whether they are sensations or emotions, or pleasures or pains of either kind, when taken simply as perceptions having duration, are for our present purpose in exactly the same case as those already analysed, and therefore must be held to be covered and represented by that analysis. We have virtually taken the whole class of feelings occupying time only, and having of themselves neither spatial extension nor location in space, as the first great class of phenomena to be examined, in beginning our examination of consciousness with the lowest instances of distinct sense-perception, which belong to that class.

But within this class as a whole we find some feelings, different in degree of complexity, presenting features to which at first sight our foregoing analysis does not seem applicable. These are the feelings of activity, or active feelings (so called), known as attention, desire, aversion, thought, volition, and so on, all of which are found to involve or contain, as a common element, the feeling which I have called sense of effort, which thus constitutes their specific difference as a class of feelings. The examination of feelings occupying time only is, therefore, not complete, without entering upon the analysis of this root feeling, which underlies the whole of what may be called its second and final section or subdivision.

A further reason may also be given. There is another circumstance belonging to perceptions occupying time only, which calls for speedy

examination. Hitherto no mention has been made, except quite incidentally, of time future; the cases which we have analysed have been perceptions of time past and present only. We have analysed the time-stream of consciousness only as seen in retrospect, looking back from the present moment; and we have seen that this involves memory. Time, however, is ordinarily conceived, in common-sense experience, as divisible into past, present, and future. The question then is, in what consists our knowledge of future time; what is the experience in which the perception of it first comes forward?

I have brought the two questions of sense of effort and future time together, because it will be found that, on the one hand, the perception of future time originates, and is originally combined with that of past and present, only in perceptions which contain the sense of effort as an element, and on the other, that there are no simpler instances of sense of effort than those perceptions in which the perception of future time originates. Attention to a content of sense-perception is as simple a case of sense of effort as we can select, and attention to a content which is already perceived as receding into the past is expectant attention, that is, expectation with imagination of a future content.[1]

[1] Here perhaps I ought expressly to acknowledge the error of certain statements made in my *Philosophy of Reflection* (Vol. I., pp. 253 and 270), to the effect, that all minima of consciousness, even if minima of sense-presentation, include a part, or sub-feeling, which is strictly future. The more thorough analysis of reflective perception now given, which in its essentials was completed long before Professor C. A. Strong of Columbia University signalised the error in his paper *Consciousness and Time* (Psychological Review, March, 1896), discloses the falsity of this idea. It was, I believe, a relic of Kantianism still cleaving to me, even when I imagined it entirely discarded. Nevertheless, the circumstance of the mathematical divisibility of empirical *minima perceptionis*, examined above, goes far to explain the possibility of the error.—As being closely connected with this subject, I may refer to a short paper of mine, contributed to a 'Symposium' at the Aristotelian Society, on the question, *In what sense, if any, do past and future time exist?* and published in MIND for April, 1897, No. 22, New Series.

Let us, then, take an instance in which the phenomenon of attention supervenes upon some such complex experience as that we have last examined. I am sitting in my study, let us say, while sounds such as those of the former experiences are going on, when suddenly a peculiar sound quite new to me is heard, say the sound of an Indian tom-tom in the street outside ; and my attention is at once aroused by the strongly marked difference of the new sound from those preceding and accompanying it. This description of the phenomenon, it must be noted, is a description of it in terms of the common-sense form of experience, and assumes two things, first the Ego, secondly the action of sensation upon the Ego. But are these two things really present in the experience ; what is the analysis of it as actually experienced ?

Let us ask, then, what is meant by attention being aroused ? What is its analysis ? And first, what is it as content ; secondly, what is it as process ? As content, it seems to me, that it is a sense of discrepancy, or break in the smooth flow of the perceptions among which the new sound is introduced. As process, I think it must be called a sense of dwelling upon the discrepancy and rendering it more familiar. The new sound creates, as it were, an obstacle or difficulty, in overcoming which a sense of effort arises, that is, a sensation similar to those which we afterwards find arising in trying to overcome physical resistance. Not, however, as if there were two feelings present in the experience, one as content, the other as process ; but one continuing feeling of a peculiar kind, which, when we objectify it as content, we call sense of

difficulty, break, or discrepancy, and when we objectify it as process, we call sense of effort. This peculiar feeling which accompanies the newly heard sound is what we really experience in the case before us, and describe as the arousing of attention; and neither Ego nor action, either of or upon the Ego, is immediately contained in the experience.

Now supposing this analysis to be correct, what relation does the sense of effort, which may be described as effort in overcoming the obstacle or resistance offered by the discrepancy of a new and unfamiliar sound, hold to the rest of the perceptive process in which it arises? It is plainly a part of the process of reflective perception, and it is plainly retrospective, inasmuch as it looks back upon the new sound as it recedes into memory, and is, so to speak, an endeavour to keep it in consciousness, and hear more distinctly all which it contains. But it is plainly also a continuation of the same process of perception; and with this peculiarity, that it only looks back on condition of itself, not only proceeding, but also looking forwards; it is an attempt not to have heard, but to hear, more distinctly; it marks a new distinction in the content heard, and that distinction is a distinction in time between what has been and what has not yet been distinctly heard in the content. The sense of effort arising in perception distinguishes a present moment not only from past and remembered but also from future and expected experience; and for the first time suggests the idea of past experience being continued into future time, and about to have a content which is at the moment unknown. Perception containing sense of effort, which marks

this distinction in consciousness, is what we call Attention, and all attention is therefore strictly expectant. Attention is always prospective as well as retrospective; and the addition of a prospective character to the retrospective perception is the reflective perception of time future, in combination with, but also in contradistinction from, time past and present. Moreover, attention is the only act or mode of consciousness in which the perception can be originally given of there being such a thing as future time; for it is the only mode of reflective perception which is prospective and retrospective at once, and combines in itself a conscious outlook in both directions.

The content which we attribute to future time, or with which we imagine it will be filled, may be drawn, as we find in later experience, either from memory in some mode or other, such as simple memory of experience, spontaneous redintegration or association of ideas, and spontaneous imagination, or from a combination of other elements with it, such as wish, desire, volition, conception, and reasoning. But of these, wish, desire, volition, conception, and reasoning, already involve attention as well as memory, and involve it as their rudimentary and fundamental feature. And the other three cannot of themselves give rise to the perception or idea of future time. Let us take a case of spontaneous association of ideas.

Suppose that I have many times heard *Rule Britannia* played, and that on every occasion it has been followed almost immediately by *God Save the Queen.* Now it may perhaps be thought, that, when I hear *Rule Britannia* once more played, the

anticipation will be suggested, that *God Save the Queen* will follow it, before the latter is actually heard, and while it is still in the future; in other words, that hearing the former will suggest hearing the latter as a future event. But such an opinion would be quite erroneous.

It is quite true that, in these circumstances, whenever I hear *Rule Britannia*, it would call up by association *God Save the Queen;* that is, it would be followed or accompanied by a faint repetition of *God Save the Queen*, which is also a remembrance of it as a presentation. But the whole of this experience, including the faint repetition or representation of *God Save the Queen* as a presentation following *Rule Britannia* as a presentation, and which is supposed to contain the suggestion of future time, would without attention be perceived only in past and present time. The faint repetition does not give the anticipation, 'I shall presently hear vividly *God Save the Queen*,' as an anticipation of what is about to happen. It is only when the notion of future time has been already formed, that the faint repetition can contain an anticipation of it. The perception of one thing following another is not the same as that of one thing being future to another which is present. For the latter notion to arise, contradistinction from present time, including all its past or represented content, is requisite. To mark the faint repetition of *God Save the Queen* as an anticipation of a future vivid one, attention is requisite; which in this instance would be attention to the vivid *Rule Britannia.* Our attention to this is a continuation of our perception of it, and this continuation has, for part of

its content, the faint repetition of *God Save the Queen*; just as in the perception of C D, in a former instance, the moment of perceiving D had also for content the retention, representation, or memory of C. The faint repetition of *God Save the Queen* would then supply the matter of the anticipation, the content which we expect; but it cannot give it originally the character of being an anticipation, or of itself refer its content to future time.

It must be remembered that we always speak, both in experience and in analysing it, of and from the moment of experience itself, which is always a present moment. And the question is, how does the perception of a future time, as distinguished from a merely sequent time, arise in a present moment of experience? It is no answer to this question to say, that we spontaneously project by imagination a past perception into the future. For whence the notion of a future, into which we project it? Nor can it be said, that we spontaneously generalise the notion of sequence, and so give to the present a continuation in a new direction, that of futurity, generalised from continuation in the direction of the past. For in the first place, generalising cannot produce a new perception; what it does is to hold room open for new perceptions of particular kinds, if they should occur. And secondly, even if it could do so,—still generalising is not a spontaneous but a volitional process, and requires attention for its performance.

The perception of future time, as distinguished from past and present, is therefore given, in the first instance, by attention alone; and the per-

§ 4. Sense of effort and perception of Future Time.

ception that future time, as so distinguished, is an empirical reality,—or in other words, the perception that, with its content, whatever that content may be, it will become present and past,—is in the first instance given solely by the experience, that all acts of attention in the past have been followed, in the past, by perceptions which, at the time of the attention, had not arisen, that is, were future. Moreover it is worth noting, that the first or rather the simplest intimation we have of future time is an expectation, not of a so-called real event happening, or of a non-existent reality coming into existence, but of a knowledge or experience being added to our present store, quite irrespective of whether the real objects (as we afterwards call them) of such an experience belong in reality to time then future or to time then past. There is, therefore, no unconditioned necessity or certainty attaching to the existence of any particular content of time future. But the existence of future time with some content or other, apart from the knowledge of any particular content, is involved in the exercise of attention. We cannot exercise attention, and at the same time not look forward into future time.—In brief, just as simply reflective perception knits together past and present by memory, so attention, which is a mode of reflective perception, knits together past, present, and future, by imagination, the content of which imagination is a modification of the content of memory.

§ 5. Attention the first instance of Activity in the Subject.

§ 5. Attention is a great landmark in the analysis of experience.[1] We have just seen, that the com-

[1] I gave prominence to this point in my *Philosophy of Reflection*, Vol. I., pp. 290-291, with reference to authorities.

pletion of the perception of Time is due to its forward or expectant outlook, whereby the notion of future time is incorporated with that of time present and past. But this by no means exhausts its entire function. The first thing to be noted about it is, that it is the simplest and least definite intimation in experience of that double order, which we have already spoken of by anticipation, and which will constantly meet us as we proceed, I mean the Order of Knowledge on the one hand, and the Order of its Real Conditioning, which is a part of the larger order of Existence, on the other. We have already distinguished the content from the process of Knowing or of Knowledge. The distinction now intended is between the process-content of Knowing as a whole and that particular portion of Existence generally which we shall find reason, as we proceed, to characterise as the order of its real conditioning.

Now attention contains in itself two parts or features, features which belong to both the orders now distinguished, though as yet without distinct notification of the orders themselves. I mean, that, while attention is known in consciousness as a peculiar feeling, which we call sense of effort in apprehension, expectant of some new or continued perception, and in immediate consciousness is that peculiar feeling and nothing more, yet this feeling is itself described only by reference to something which at the time is not in consciousness at all, namely, the effort which it is said to feel, and which is sometimes itself described by the purpose for which it is said to be made. There is, then, something implied in attention, which is not positively,

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or as a specific content, in consciousness at the time, as well as that which is in consciousness in this way, namely, the feeling by, or rather as, which it is immediately known.

What, then, is the effort, of which we say we have a sense? What is the effort, strain, tension, activity, or re-action, the feeling or perception of which we call attention? Here is the second of the two features which attention involves. Now it seems to me, that these things, said to be the things felt by sense of effort, are not in the least made known to us by that sense. They are not objects of immediate sense at all. They are processes which are objects thought of, and thought of by means of conception. When by later, or rather by more complex experience, into which no doubt this feeling enters as an element, we have formed the conception of a real process in the fullest sense of *reality*, we then describe the sense of effort, of activity, of re-action, and so on, by referring it to objects thought of under that conception. But the sense of effort taken by itself, and as immediately experienced, does not convey any such conception. It is simply a peculiar feeling which we have no words to describe, except such as connect it with its supposed real condition, or manner of coming to be felt; describing it, I mean, as sense of effort, activity, or re-action on the part of the Subject, which afterwards, and partly in consequence of this feeling, we have come to conceive and know by reasoning. It is therefore a mistake to suppose, that the effort, the activity, or the re-action, is either content or object of what we call the sense of it. What we call conscious activity is not a

consciousness of activity, in the sense of an immediate perception of it. Try to perceive activity or effort immediately, and you will fail; you will find *nothing* there to perceive. Effort, activity, action, and re-action, are neither contents nor objects, but real conditions, of what we call the sense or consciousness of them; and the sense by itself gives us no knowledge whatever about them. A great deal of empiricist, as opposed to experiential, psychology is based on the mistake in analysis now once more detected.

Still less does the sense of effort convey, by itself alone, the notion of an agent, whether as Subject or as Ego, or of an energy inherent in consciousness itself. It is a contributory to the formation of these notions, but they are not involved in the feeling *per se*. Such phrases as 'I feel myself acting,' 'I am conscious of my own activity,' and so on, are forms of language framed subsequently to the acquisition of the idea of an agent, whether it be called Subject, Ego, Will, or Thought. What is called the immediate certainty or consciousness of my own action appears to be immediate only in the common-sense form of experience. In experience as it actually occurs, it is analysable into elements which can be shown to have been originally separate. And therefore to adopt it as an ultimate fact of experience, or one which is not farther analysable, is to fall into the fallacy of making philosophy repeat an *explicandum* by way of giving its *explicatio*.

In fact we designate, but do not really describe, the feeling in question, by calling it sense of effort, of activity, and so on. This does not show either

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that the feeling is unreal as a specific feeling, or that the source is unreal, by reference to which we designate it. But the feeling is that by which alone attention is immediately known to us in consciousness. Attention, therefore, in these simple instances of it, contains a part, which is as yet unknown; and the part which is known has reference to the unknown part, whatever it may turn out to be. Supposing the Subject to be capable of understanding what he was doing, at the time of performing his earliest and simplest acts of attention, he would have to conceive this part of it as included in the unknown future, of some part of which all attention is expectant. And it is only on account of this unknown part in attention as a whole, that I can describe it proleptically, in the title of the present Section, as an instance, and not merely as an indication or sign, of activity in the Subject.

Another point to be noticed is, that the specific feeling or sense of effort adds a new content to the process of reflective perception, of which it is a modification. We have already distinguished the process from the content of reflection. We now distinguish, within the process, a modification which is a new feature or content of it as a process. The sense of effort belongs to the process of perceiving. It does so because, though a specific feeling and variable in intensity, it may arise in the case of any kind of content, and is indifferent to the kind of content in which it arises; in which respect it is closely analogous to the feelings of pleasure and pain, though these have not the same universal indifference to specific

contents which is its characteristic. The sense of effort, like the process of perceiving itself, is common to all kinds of content, and indifferent to them. We objectify it, no doubt, in subsequent perceptions, just as we objectify prior perception generally; but in so objectifying it, we perceive it as part of some particular process of perceiving, as distinguished from the content perceived in that particular process. The discrimination of sense of effort in processes of perceiving is, in fact, the first or lowest root of that experience, in which subsequently the process of perceiving is objectified separately from the content or object perceived; which again leads to the further objectification of the perceiving Subject from among perceived objects. In other words, the sense of effort belongs to, and is the lowest discriminating mark of, what we call conscious acts of knowing as distinguished from the objects known thereby, while, as we shall see more fully hereafter, the effort, activity, or re-action, of which it is said to be the sense, belongs to the Order of Real Conditioning, the Order *existendi vel fiendi* of real agents.

The sense of effort, it has just been noted, is not restricted to arise in any particular kind of content, but may be an element in the perception of all. Arising in a feeling which is pleasurable, it becomes fondness of it, or, in case of hindrance interposing, desire for its continuance or increase. Arising in a feeling which is painful it becomes aversion, or in certain cases avoidance. Add sense of effort to the feeling of discomfort or uneasiness, and you have sense of effort in the form of desire

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to escape or avoid those feelings. Everywhere it points to and implies an action which goes on below the threshold of consciousness, in the real conditions which give rise to it; but of itself gives no knowledge of what that action consists in, or whether it originates in the organism as an organic nisus, or in some action of the environment upon the organism.

Attention is the name for this activity, as yet unknown in its own nature, existing in the conditions of consciousness below the threshold, so far as it is known by its conditionate the sense of effort, in the case of perception of a content, simply as a content, without any restriction to content of a specific kind. It was for this reason that, speaking of attention, I called it the simplest case of sense of effort. All other cases, some of which have just been mentioned, are particular modifications of sense of effort, over and above the distinct perception or consciousness of them as particular feelings.

Thus sense of effort, simple or modified, is evidence of action on the part of the Subject, action which is not known by the sense of effort *per se*, but which comes to knowledge subsequently. The sense of effort is then seen to have been anticipatory of that subsequent knowledge, which throws back light upon it. And all the forms which sense of effort takes, in its various modifications, are double in the same way which we have just seen exemplified in the case of attention. They are always evidence of action on the part of the Subject. Will or volition is a name for one form of it. The term Will, indeed, is often used to

include and express generally the whole field covered by conscious action or re-action, so that, in this usage of the term, attention, wish, desire, aversion, and avoidance, with their derivatives, would all be classed as particular modes, not of effort or sense of effort, but of Will. But as the term Will has another and more special sense, in which it means choice between alternatives both of which are consciously present, and from long usage almost inevitably suggests this idea, it is better, I think, to restrict it to that meaning, instead of employing it in two senses, a wider and a narrower. *Conscious action*, taken as equivalent to conscious process-content including a sense of effort as evidence of real action or effort, will still be the term best employed to designate the wider generic idea.

Thus, onwards from any point at which sense of effort appears in any process of perception, that process may be considered as not process simply, but process which is *action*. Not that there is a numerically single point in the history of consciousness, after which simple processes cease to exist, but that simple processes in certain constantly occurring cases take on the character of actions, and become actions as well as processes. Perceptive processes in the time-stream of consciousness, which contain no sense of effort, are called spontaneous, in the sense of not being modified by a re-action on the part of the Subject, evidenced by sense of effort. They are conditioned on processes in the Subject, or in the organism, which, not being attended by sense of effort, are not actions, but which may either have preceded actions, or have

resulted from actions which were at one time attended by sense of effort, but are so no longer; that is, from which the sense of effort has dropped away, owing to frequent repetition and the ease acquired by habit. Such processes and actions go on side by side with one another, and are often found in reciprocal interdependence, as, for instance, in the case of the reasoning process, in which both are present. The time-stream of consciousness is enriched, as it were, by two kinds of currents in lieu of one; or to recur to the image of the rope of many strands, two kinds of strands are now present, where only one was found before the appearance of sense of effort. I have already noted, that this difference is a difference in the process, as distinguished from the mere content of the perception.

It remains to speak briefly of the different modes which are comprehended under the general name *sense of effort*, or in other words of the classes into which the feelings belonging to it may be divided, although in doing so it will be necessary again to anticipate the result of experiences which have not as yet appeared in our analysis. Making use, then, of such results provisionally, it will be found, that the feelings in question fall primarily under two main heads, the first containing feelings which attach to some form or forms of Desire, the second containing feelings which are experienced in consequence of Muscular Exertion.

Those of the first head, Desire, may be subdivided into four classes, which we may call those of perceiving, retaining, reasoning, and choosing between alternatives. In all these cases under the

head of Desire, we are conscious of what we call an endeavour, that is, have a sense of effort to attain something, but are as completely unconscious of the real effort, action, or activity, the presence of which is evidenced by the sense of effort (though it is not its content or immediate object), as we are of the re-action really involved in simple or spontaneous perception, where there is no sense of effort at all. The real activity evidenced by sense of effort may in all these cases be conceived as a higher degree, or more complex mode, of the very same kind of re-action which is involved in cases of simply perceiving; the only difference being, that now its presence is betrayed by a special element in the process-contents of consciousness, which depend upon those neuro-cerebral processes into which it enters.

To the first subdivision belong cases of attending to a persistent sense-object or percept, where the feeling in question is a sense of difficulty in perceiving it as clearly or distinctly as we wish to do. The second includes cases where we are trying to retain in consciousness, or to enhance in vividness, some idea, thought, or feeling, which tends to pass into oblivion and escape us; the desire being due either to some intrinsic pleasurable interest in the content which we seek to retain, or to the intrinsic disagreableness of some other content, which we seek to exclude from consciousness by retaining a different one. To the third subdivision belong cases which may be described, in general terms, as cases where we try to bring definitely and distinctly into consciousness some feeling or idea, which will supplement or harmonise with what we already

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have before us, but of the nature of which we have only a vague and evanescent inkling. The fourth is where we endeavour to retain or enhance any thought or feeling which tends to escape, and to hold it in comparison with others which tend to exclude it from consciousness, so as to decide which of the alternatives is really the most preferable. The first of these four subdivisions belongs to what would usually be classed as presentative sense-perception; the three latter to redintegration. But in all alike the special feeling-element which is evidence of real re-action is a particular mode of sense of effort, the nature of which is best described as a sense of difficulty, discrepancy, or obstacle, opposing or resisting the fulfilment of a wish.

It is under the second main head, that of Muscular Exertion, that the most obvious and familiar cases of sense of effort are found, and those in which that feeling is most strongly marked. Here the sense of effort arises directly from some kind of muscular action, whether put forth in moving or guiding our own limbs, or in bodily exercises dealing with external physical objects, or in the adjustment or accommodation of our organs of sense, or in inhibiting or accelerating the action of other organs which are partially subject to control, as for instance in checking respiration. It is in these cases, as already said, that the sense of effort is most prominently and unmistakably marked, and it is also these which show most clearly, that it is not a sense of that action or effort (if it be an effort) which sets the muscles in play. For in these cases the sense of effort, so far from

accompanying the efferent neuro-cerebral action directed upon the muscles or organs in question, is a feeling consequent upon their being so set in action, and conveyed to some sensory centre by afferent nerve channels. The only action or effort, of which it can in any way be said to be a sense, is action or effort in, or on the part of, the muscles or organs originally acted upon ; and even of what is really going on in that action of theirs it gives us no immediate knowledge, but is simply a feeling conditioned to arise in consciousness upon their being roused into activity.[2]

Here again the feeling taken by itself is a perception of some specific kind, not of action or activity, but only of difficulty or resistance ; that is to say, what we specifically feel in it may be best described as an unwished-for interruption or hindrance in the stream of consciousness, the uninterrupted continuance of which is expected, and, if not wished for, may become a wish solely by the perception of the hindrance. Similarly the muscular action which gives rise to it, taken by itself apart from the feeling, is known to us only by observation of physical processes and events, and our knowledge of their connection with the feeling is a knowledge due to association and inference. When we call this action *effort*, we do so only in virtue of combining, in thought, the inferred action

[2] This, I believe, is now the most generally accepted doctrine. See in support of it, and for its history, *The Brain as an Organ of Mind*, Appendix, pp. 691 to 700, by Dr. H. Charlton Bastian, F.R.S., in the International Scientific Series, 1880. Kegan Paul and Co. See also a paper by Professor William James, entitled *The Feeling of Effort*, contributed to the Anniversary Memoirs of the Boston Society of Natural History, 1880. A brief summary of the conclusions arrived at in this paper, first and foremost among which stands the broad distinction between mental and muscular effort, will be found in MIND, Vol. V. No. XX. October, 1880.

with the immediately perceived feeling, as if they formed a single whole not capable of discrimination, as it really is, into distinct components, one of them being a physiological process, the other a feeling conditioned upon it. Or in other words, the common-sense meaning of *effort* includes sense of effort as an undistinguished element. Metaphysical analysis, in conjunction with physiology, discovers the distinction, and points out the necessity of keeping the two components unconfused with one another. And the result is this. When the sense of effort arising from muscular exertion is [kept distinct from the action or effort which directly conditions its arising, and is considered simply as a feeling of a certain kind, it must be brought under the same principle as that sense of effort which belongs to the head of Desire, seeing that both alike are cases of that single general fact or phenomenon, the range of which is co-extensive with that of sense of effort generally, namely, the sense of hindered expectation, or expectation aroused by perception of hindrance.

On the other hand it must be noted, that many persons might be disposed to deny, that the cases which I have classed under Desire are strictly cases of sense of effort at all. They appear to be so, it might be urged, only from the fact, that they are invariably accompanied by the only true sense of effort, namely, that which arises from muscular exertion; inasmuch as in all instances of them we throw some part of our muscular system into a state of tension, and then transfer, in imagination, the sense of effort thence arising to the processes of attentive perception, retention, reasoning, and

volitional choice, all of which are invariably accompanied by muscular tension. For it is a familiarly observed fact that, whenever we fix the attention, as it is called, in any of the ways mentioned, we also perform some muscular act of fixation, as holding the breath, keeping the head unmoved, closing the eyes, clenching the teeth, and so on.

But this reasoning admits, I think, of a decisive reply. Grant that the accompaniment is invariable; grant that the muscular sense of effort is the most prominent and unmistakable kind of it; and grant also that the two kinds of feeling (whether both are sense of effort or not) are very difficult to discriminate with precision. Still it will not follow, that the muscular kind is the only one which deserves strictly to be called sense of effort, unless it can be shown, that it differs essentially and wholly from what I have called the other kind, when both alike are taken simply and solely in the character of feelings. But this is just what it is impossible to show, if the analysis now given is correct. For we have seen that both kinds alike, when taken simply as feelings, have one and the same fundamental characteristic in common, namely, that of being a sense of difficulty or hindrance in the path of forward-looking or expectant consciousness. In other words, there is a feeling which we can only describe in vague and general terms, as a sense of difficulty or hindrance of expectation, which is the common basis of all the specific kinds of sense of effort which have been enumerated, or the common genus of which we must regard them all alike as differentiations. In the case of muscular sense of effort, the proof

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that it is a conditionate, and not an immediate perception, of real action, is the very thing which compels us to enquire what it is simply as feeling. In doing which we find, that there are no differences between the cases which it includes and those included in its companion kind, save differences which arise from the one class being conditioned on muscular and neuro-cerebral action combined, the other on cerebral or neuro-cerebral action alone.

§ 6. Analysis of Conceptual Attention.

§ 6. It must be reserved for a future Chapter to follow up this part of the subject, when we may hope to have formed some more definite idea of what the real conditions are, upon which perceptive processes proximately depend. It must, therefore, still be borne in mind that, in speaking of attention as an act, as I shall continue to do, I am speaking of it proleptically, or by anticipation of what is afterwards to be shown concerning it. Nevertheless, there is one differentiation of it, which marks a step so important in the structure of our knowledge, and is at the same time so closely similar to the simple form of attention which occupied us in § 4, and therefore so liable in spite of its importance to be confused with it, that it will perhaps be best to advert to it at once. I mean that mode of attention to a perceptual content which includes, not merely a forward outlook of expectancy, but also some perception of a purpose to be attained by the outlook. In the simple form of attention the purpose of the sense of effort is not perceived prior to the act of attention itself, but is, as it were, born with it; and the knowledge of it, like the knowledge of effort itself, is an addition due to a

subsequent moment of reflective experience. But in the mode of attention now before us, some motive or purpose of the effort is perceived in making the effort, and some kind of positive result anticipated, apart from the anticipation of our becoming more clearly or distinctly aware of the percept attended to. There is some feature in the content perceived which is of greater preferability or interest than others, and which is said to attract the attention, as a motive or purpose determining it. The attention is then no longer a simple reaction apparently determined by a single vivid or newly presented feature in consciousness, but is selective of the feature by which it is said to be attracted or determined. Attention so modified as to be consciously selective is therefore a more complex process than simple attention unmodified.

The simplest case of this selective mode of attention is when we attend to a feeling which has already aroused attention of the simple kind, with a view of harmonising it with some other feeling or feelings still present, or capable of being presented, in memory; that is, of comparing, relating, and classifying it. We then do more than simply attend to it; we attend to it and question it. We put to it the question, *What is that?* The act is immediately felt or perceived as one of questioning with a view to harmonising; an act of comparing and relating one feeling to others; an act preceded by a more or less definite consciousness of purpose. Of course I do not mean, that we recognise or class the act itself, at the time, as an act falling under those terms. For that to be done, the act must have been itself attended to with a similar purpose.

What I mean is, that it is an act which, when it has been itself attended to, we then describe in those terms, and can properly describe in no others. They describe what it is as a process-content of consciousness.

Now the act of modified, complex, or selective attention, which we describe as the act of putting the question *What?*, of harmonising, comparing, and relating, has its completion attained, its end fulfilled, its question answered, by the perception of the similarity of its object to some contents, and dissimilarity from others, which are either already present in memory, or occur at the instant of questioning in presentation, and so are offered, as it were, to its embrace by spontaneous processes of perception. Some part of the content offered by these spontaneous contributory processes is then perceived to be either like or unlike the particular content attended to and questioned. The result is a perception of likeness, or of unlikeness, or of both. If it is of likeness, it is a classification; if of unlikeness it is at least a step towards classification. And the truth of this result depends entirely upon the content of perception, while at the same time the fact of its being reached at all depends upon the act of modified attention being performed.

The act of complex or modified attention now described is another great landmark in the analysis of experience. The complexity or modification consists in the circumstance, that the attention has a purpose consciously in view, over and above the purpose of a clearer or more distinct perception of the single object attended to. And we have seen that the attainment of that purpose, or the answer

to its question, which is given by perception, is a classification, or at any rate a step towards one. The act is a re-action on the part of the Subject, and leads to a result which is due partly to that re-action, and partly to the content furnished by perception. To mark its dependence on the Subject, the act is called *Conception*, and its result a *Concept*. The Subject's conscious re-action is con-cause with percepts in producing concepts. His conscious co-operation modifies a percept, and makes it a concept. It seems as if the phrase *concipere mente* were framed by analogy with *concipere utero*. At any rate this interpretation of the phrase is far more adequate to the truth than the simple interpretation, '*concipere, id est, capere hoc cum illo*.' For the *hoc* and the *illud* are not singled out for comparison before the act, leaving nothing for the act to do but to note, and as it were register, their likeness or unlikeness to each other; but they are compared, and classed together or apart, as contents or objects of perception, in consequence of the act of attention singling out one of them for question. Strictly speaking, the act of conception is complete as an act before any positive result of classification is obtained. It is not dependent for its conceptual character upon an answer or a result being given by the supervening spontaneous perception. In the act itself, expressed merely as the question *What?*, the percept which is singled out for question is already a concept; that is to say, it is picked out from its context by conscious and purposive attention, and held in readiness to combine with any other percept on the ground of similarity, entirely irrespective both of similars

being found for it or not, and also of what the next following percept would have been, had the prior spontaneous perceptive process not been interrupted and modified by the conceiving attention.

The great importance of the conceptual act in the structure of our experience, and consequently in its analysis also, consists in its being the root and source of all logical judgment, thought, and reasoning. I do not mean that it is self-originated, for we have just seen that it is derived by modification from perception. But it is the act wherein the process of perception is so modified by the agency of real conditions in the Subject, as to become a process of conscious logical thought, which deals with concepts, and ceases to be a process of perception merely, dealing with percepts as yet unmodified into concepts. We have seen in a former Chapter, that all the terms of language are general terms. We can now see why they are so, namely, because they are words signifying concepts as distinguished from percepts, and conception is of necessity a generalising process.

We may have abstractions in perception. In a single given percept I may fix upon a single feature by simple attention, and the mere endeavour to perceive it more clearly or distinctly involves abstracting from its context. All perception is perception of differences, and perceptual attention may in all cases be said to seek differences, as conceptual to seek similars, in virtue of its seeking harmony. Simply attentive perception is the endeavour to perceive more clearly or distinctly the differences which a given percept contains.

Every feature so perceived, taken separately, is an abstraction also, just as the percept itself is; but it is not a concept, because not fixed on by selective attention for the purpose of more being known about it than is contained in it as a single percept, that is, of its being harmonised with other experiences. It is not a percept expectant of coalescence with its similars, but something individual, which general terms can be used to describe only when modified by a pronoun, adverb of time or place, or other mark restricting their generality, as *e.g.*, this particular note C, this particular instance of blue, the year 1870, the meridian of Greenwich, and so on, in order to make them applicable to the thing spoken of in its individual capacity. The meridian of Greenwich, though known as a meridian only by a process of conception and classification, yet regains its perceptual character, and is returned, as it were, to perception again, by its individualisation as the meridian of a single place.

In conception on the contrary it is impossible to escape from general terms. Nor does their appearing on the scene depend upon the result obtained by conceptual acts; I mean upon a comparison or a classification having been effected. Terms are not general because they describe classifications or comparisons already made. Such terms would be mere collectives, describing, say, the collection of instances in which a certain sound, or a certain colour, appears, and therefore applicable to all objects in which the sound or colour is exhibited, or which possess it as a characteristic. A percept may, in fact, be generalised before any similars are found for it in perception. It is generalised by

merely putting to it the conceptual question *What?* For this holds it open, as it were, to combine with its similars, in case any should occur, and thus gives it a character quite different from, and additional to, its character as a percept simply. Neither does the question *What?* pre-suppose any conception of likeness, or any *a priori* notion whatever. It is our expression to describe the questioning attitude, that is, the active tendency to harmonise, arrange, simplify, and as it were master, the mass of contents, that is, the mass of perceptual differences, offered by presentative perception and processes of spontaneous redintegration. This tendency is the root and origin of the processes of conception and reasoning, and the law which governs and expresses it is known as the Law of Parcimony; which is thus the ultimate law of all conscious and purposive action, expressed in terms of consciousness, and corresponds to the law of movement in the direction of least resistance in physical processes.

There is another mode also in which we arrive at abstract percepts, besides that of simple attention. It is a mode of attention subsequent to conceptual, and founded upon it, and is, as it were, a return to perception, the purpose of which is derived from the knowledge furnished by conceptual processes. This is attention for the purpose of perceptual analysis, and may properly be called *analytical attention.* It is the special instrument of philosophy, being the mode in which we appeal to experience, that is, to facts, in answering questions which have been raised, but not solved, by processes of reasoning founded on conception.

Thought indicates what kind of facts are to be examined. They are those which give rise to conceptions and lines of reasoning, which lead to conflicting conclusions. By thought we select some crucial instances of these facts, divest them of matter irrelevant to the purpose in view, and again direct our attention to the clear and distinct perception of their contents and relations, as representative, though individual, instances of experience. It is out of the differences so discerned that conceptual harmony in the end results, for new differences give rise to new similarities and new dissimilarities, and therefore also to new conceptions and new classifications.

The modification effected by conceptual attention in the stream of consciousness is thus very definite, and at the same time very thorough-going. The whole of experience, taken as a cognitive process, may be exhaustively divided between percept and concept. Beginning with percepts we proceed to question them, which turns them into concepts, and the answer is given, if at all, by perception again. Perception is the beginning and end of the whole process of knowledge, conception intervening with its questions, and the answers being given by perceptual analysis undertaken with a distinct purpose in view. Concepts *per se* are questions without their answers. At the same time, the percepts which are their answers are percepts in obtaining which conceptual processes have been involved, which give their form to the answers obtained. A feeling simply perceived is not a question ; neither is it an answer. It is a fact which gives rise to a question, when seen in

§ 6. Analysis of Conceptual Attention.

connection with other feelings; and the question then finds an answer, if at all, in analytical perception of related feelings. Experience cannot begin with a question any more than with an answer, but with facts which give rise to questioning. A question not starting from facts as data would be a question about nothing.

I will add a brief conspectus of acts of attention, in ascending order from simple to complex.

I. Attention expectant of the continuation into the future of some given present experience.

II. Attention selective of some feature of interest in a given present experience, and expectant of a future experience relevant to it.

Of this there are two cases:

A. Where the interest arises from some pleasure or pain;—*Desire* and *Aversion*, *Hope* and *Fear*.

B. Where the interest arises solely from novelty in the content of the experience;—*Desire of Knowledge*, that is, of harmonising the novel feature with old ones in the expected experience.—*Intellectual Conception.*

III. Attention with awareness of the selection under A, and purposively attending to one out of alternative desires;—*Will.*

IV. Attention with awareness of the selection under B, and continuing the process of conception, with the aid of perceptual analysis;—*Reason.*

§ 7. The Time-Stream and it parts. *Esse* and *Existere.*

§ 7. A few words on the results obtained in the present Chapter may be permitted in conclusion of

it. We have clearly discerned, within the process-content of experience as a whole, a certain kind of feelings, namely, feelings of effort, which are evidence of activities on the part of the Subject hereafter to be disclosed, though they do not of themselves contain a knowledge of those activities, or tell us what an activity is. This is knowledge which depends on perceptions which we have yet to analyse. When we have obtained a definite idea of the agents and the activities, of which these feelings are evidence, the importance of distinguishing them from the rest of the process-content will be more clearly seen. For when we say that we have in certain feelings the first, and only ultimate, evidence of activity on the part of the Subject, it is clear that in them we have the origin of a distinction which is perhaps the most cardinal in the whole range of the experience of men, considered as real individual beings, I mean the distinction between what such real beings *know* and what they *do*, or how they *act;* or in other words between that which is the object of Speculation and that which is the object of Ethic. In this way the distinction of feelings of activity from the rest of the process-content of consciousness not only makes a first contribution towards the demarcation and establishment of the science of Psychology, but also lays the first foundation for two departments of philosophy proper, I mean those of Ethic and Logic. We have already seen, that Thought, the object-matter of Logic, takes its rise in the second and more complex mode of attention. And Logic and Ethic are alike in this, that both have conscious activities of the Subject as

their object-matter, and both aim at guiding the course, as well as analysing the nature, of the conscious activities which are their objects.

But perhaps the most important point to be noticed is, that the two kinds of process which are now distinguished from each other, I mean that which is action and that which is process simply, do not stand in the relation of Subject and Object to one another. True, the process which is action is action on the part of the Subject; but this does not show that the process which is process simply is its object. Both processes alike contain both objectivity and subjectivity in themselves, inasmuch as both alike are processes of reflective perception. They are to be conceived as two currents, or two strands, in the whole stream or process-content of experience, running side by side and constantly intermingling with or changing into each other. Whether at any given moment the whole stream contains either one or the other singly, consists of the simple or the complex one, or of a simple and a complex current at once and side by side, is here unimportant. It and they alike follow the law of all perception; that is, rise into consciousness and recede into memory in the successive moments of actual experience. The perceiving process as well as the objects perceived become in those moments objective to perception, and take their place in what may be called the panorama or universe of knowledge. Since everything which the panorama contains enters by the one gate of reflective perception, everything must at least form part of the time-stream of consciousness or experience. Everything surmisable must

have a place therein. That which has neither place nor duration in time does not exist at all, in any sense of the term existence which has a meaning for us.

It has been shown above, how the perception of time future is added to and combined with that of time past and present, so as to form one continuous whole. Time occupied, so to speak, by feeling is the time-stream of experience in its ultimate and most general expression. Time and Feeling are universal features in all parts of the stream. But it is important to notice that they are not common to its parts in exactly the same sense. Here we have an instance of the difference between a perceptually abstract and a logically general term. It is always some specific feeling or feelings which are present in consciousness, not portions of feeling in general, that is, feeling undifferentiated into specific modes. Feeling in general is a logically general, as well as an abstract, term; and as such has no perceptual object answering to it, that is, none at all except the specific feelings of which it is the highest generalisation. It is not the name of undifferentiated feeling as a percept, for no such percept exists.

But with time, the other element in the stream of consciousness, it is different. It is always some portion of a single time-duration which is present, differentiated or distinguished from other portions solely by change of feeling, or difference of the feelings, which are its content. The time of which it is a portion is not a logically general term, like feeling in general; it is an object, or rather an objective though abstract element, just the same in

§ 7. The Time-Stream and its parts.—*Esse* and *Existere.*

kind, that is, just as much *perceptual*, as its parts; not distinguished from them as a general term is from the particulars which it covers, but as a perceptual whole from its perceptual parts. Time as an abstract element of consciousness depends on abstraction from feeling, but this does not convert it into a concept or logically general term. It is an individual though abstract percept, as well as being numerically one. The notion that time is a logically general term, or concept, standing to all particular portions of time as genus to species, is a notion which has wrought great mischief in philosophy.

The truth about it is, that time as a whole, in the full significance of the term, is one of those percepts spoken of above, which are answers obtained by means of conceptual processes, and therefore require those processes for their full understanding. But, as already pointed out, the end as well as the beginning of conceptual processes is laid in percepts. And thus the perceptual nature of time is unaffected by the fact, that insight into its nature is attained partly by conceptual processes. The general terms used in reasoning must in every case be re-translated into their perceptual equivalents, before they can appear as realities in the conclusion. It is here that the difference between the terms *time* as a whole and *feeling* as a whole discloses itself. *Time* as a whole has a single infinite, or at any rate indefinitely bounded, percept, as its object signified; *feeling* as a whole has no corresponding single percept signified by it, but has instead an indefinite number of specific feelings, which are spread out, as it were, over the whole of

time, and which the term *feeling* serves to gather up, for thought, into a conceptual unity.

We have in this Chapter obtained a view of the whole process-content of experience, so far as it takes the form of a stream, rising into consciousness and receding into memory; and we have seen that all experience must take this form at least, whatever other forms it may assume in addition. To infer the reality of objects or events, past, present, or future, of which we have not ourselves had immediate experience evidenced by memory, is to bring them by thought into, that is, think of them as really existing in, one and the same time-stream, the present moment of which is occupied by the representation of them. To conceive or imagine more time-streams than one is, as we have already seen, an impossibility.

Within this time-stream of consciousness we have also distinguished various modes of perception, and various contents and objects of perception, one and all of which are parts of the whole stream, whether as processes or as contents of process. And this inclusion and differentiation together enable us to give a further differentiation of the general term Being or Reality in its widest sense, in which it is taken as the Thatness of a Whatness, and which is expressed by the dictum that *Esse* is *Percipi*. This sense of *thatness* is common to the whole and every part of the time-stream. But there is another sense of the term in which it is applicable to the parts only. When we say that a particular percept exists, *percipitur*, we say more than *percipitur* simply. We also refer it to a particular place in a time-series, or more

§ 7. The Time-Stream and its parts.—*Esse* and *Existere.*

briefly to a particular time; that is, we relate it to its context in the time-stream.

The time-stream as a whole has no context in time; it has *thatness* simply. But every one of its parts has some context within the stream as a whole. A part has *thatness* also, but its *thatness* is a particular one. This particularising sense of the term *thatness* is marked by the word *existere* as distinguished from *esse.* The preposition marks the relation to a context, in that particular portion of the stream to which we apply the term *existent.* The German word *Dasein* is capable of the same employment. When we come to examine our perceptions in space as well as time, we shall find that existence, or *thatness* in the particular sense, is applicable to them also in a precisely similar way, indicating place in relation to spatial context, that is, place in its strict and literal meaning, no longer merely figurative, as when we speak of place in order of time. And as we proceed farther, we shall find other differentiations of the term *thatness,* corresponding to further experiences still to be disclosed by the analysis.

CHAPTER IV.

FEELINGS IN SPATIAL EXTENSION.

§ 1. I need make no apology for quitting at this point the examination of perceptions which may be treated, by abstraction, as occupying time only, and passing at once to perceptions of another order, namely, to the perception of feelings which, in immediate consciousness, occupy space as well as time. For this will be found the only road by which we can arrive at the origin of those conceptions, some rudiments of which we have already found involved in the phenomena of attention; I mean the conceptions of action and agent, activity and the Subject. It has been said above (Chap. III., § 4) that all process-contents of consciousness, of whatever kind, and of all degrees of complexity, which occupy time only, except so far as they include sense of effort and its derivatives, are represented and covered by the analysis of certain very simple sense perceptions, which has been already given. Before we can return to sense of effort and its derivatives, we must plainly look in another quarter; that is, to feelings which occupy some other perceptual form than that of time only. Yet we shall not have occasion to look farther than to feelings already comprised in the

group of experiences selected for present analysis at the outset, in Chap. II., § 1.

It has been shown that every feeling has in it a time-element, occupies some portion of time, and is a part of a continuous time-stream of consciousness. But there are some feelings which, besides this, and without ceasing to be parts of the continuous time-stream, have also a space-element, occupy some portion of space, and are parts of an experience which is spatially as well as durationally extended; as if the receding stream of consciousness, in those parts of its course where the space-element comes in, were for a time expanded into a lake.

The feelings which immediately and inseparably have this space-element, and so are spatially extended, are of two kinds, the sensations of sight and of touch. I do not count muscular sensibility, or the sensations of heat and cold, or the sensibility to the direction from which sound comes to the ear, as being themselves immediately and inseparably bound up with a space-element. They may, and I am inclined to think they do, owe their extension to constant association with the sensations from which it is inseparable. I can discover no trace of extension, and consequently no trace of direction, in them, when taken alone. When we know *aliunde*, that they are caused by objects which are in various directions of space outside us, and that our own bodies are extended substances in space, then the differences in the sensations become marks by which we judge of the distance and direction of those objects, or of the magnitude of the bodily part affected. But this does not

involve their containing direction or extension as elements of themselves.

In subjective analysis we must take our stand frankly on introspection (as it is called) and its results. If we speak, as we must, of the sensations as belonging to different bodily organs, we must not make this knowledge the basis of our distinction between different classes of them, or the criterion to decide what features are to be included in each class. We must look only to the content of the sensations as perceived contents, beginning with the whole content of our consciousness, and distinguishing it into classes by its various differences. It is in this way that we come to classify sight and touch themselves as sensibilities different in kind, and capable of separate and independent exercise.

Sensations of sight and touch always contain an element of extension, which we cannot describe as of less than two dimensions, or what we afterwards call superficial extension. This extension is not perceived originally as only superficial, because we have not, at first, the perception of depth, or the third dimension, with which to contrast it. These sensations do not exclude, but at the same time they do not contain, the perception of depth. We see a coloured surface, we feel a hard surface, as we afterwards call them; but what we really and immediately see and feel is colour extended and hardness extended. Speaking only of these two senses, and putting aside all importations from after-acquired knowledge, we can no more see or feel extension without colour or hardness than we can see or feel colour or hardness without exten-

§ 1. Visual and Tactual Sensations.

sion. Superficial extension is thus the *minimum* of space immediately perceived; we do not originally perceive points or lines by themselves; we perceive them as differences of superficial extension, or more strictly as differences of the sensations occupying it.

§ 2. Perception of their extension not due to Association.

§ 2. I have spoken of certain other modes of sensibility, the sense of muscular tension, of heat and cold, and of directions of sound, as possibly owing the spatial extension, which they appear to involve, to their constant association with the sensations of sight and touch, from which it is inseparable. Why, it may be asked, may not the sensations of sight and touch also owe their spatial extension to association? The answer has already been given implicitly. If sensations of sight and touch owed their spatial extension to association, it could only be to association, not with other sensations, but with spatial extension itself. But sensations of sight and touch prior to the supposed association, that is, apart from spatial extension, are mere abstractions; similarly, spatial extension apart from them is a mere abstraction; each of these two abstractions pre-supposes the concrete case from which it is abstracted; that is, requires us to have had a prior knowledge of the combination of sensations of sight and touch with spatial extension;—which contradicts the hypothesis of their combination being due to association originally. The ultimate fact of perception, in the case of these two senses, is a complex fact; that is, every such perception has an element of feeling and an element of spatial extension inseparably bound up together, the former occupying the latter,

just as all feelings, and these among the rest, have a time-element, in virtue of which they occupy time.

To this reasoning it is sometimes replied by Empiricists, that Metaphysicians miss the whole point of their argument, which is, that the power of association, which is admitted to account satisfactorily for a great number of our conceptions, is a power great enough to have effected the fusion of spatial extension with feelings of sight and touch, and that so completely, that we are now positively unable to perceive, or even think of them, except as combined. Association, they say, will really account for the very *fact* of inseparability in consciousness.

But metaphysicians are perfectly aware of this contention of the empiricists, and their reply is this. The supposition, that association has really effected the inseparability in question, is one which cannot be made without quitting the point of view of subjective analysis of consciousness without assumptions, which is the sure ground of experience, and consequently without thereby instituting an enquiry, and proposing an hypothesis, concerning conditions and genesis, before ascertaining what the things are, which are supposed to be respectively condition and conditionate. For it involves the assumption that extension can *exist* apart from the sensations in question, and those sensations apart from it, though neither can in the least degree be either perceived or construed to thought without the other. The theory is thus built ultimately upon an hypothesis; this hypothesis is that of a relation between entities which are made out of abstrac-

tions; and these abstract entities, also by the hypothesis, are not even construable to thought. They are mere words which have not, and cannot have, an intelligible meaning. Whatever, then, may be the cause of the fusion, if there be a cause, it is plainly not association; for association always supposes the separable existence of the perceptions associated.

But it may possibly be said, that after all the reply just given rests on the metaphysician's arbitrary assumption of a principle of method, namely, that of postponing enquiry into genesis to enquiry into nature. That this is no arbitrary assumption, but is essential to a method based on experience alone, I have already made evident. Nevertheless I will try to show the futility of the empiricist's contention in another way. Suppose for the sake of argument, that utterly void extension was once an object of perception. Suppose also that sensations of light and colour were once perceived as wholly unextended objects. Suppose the same of sensations of hardness, or tactual sensations. And suppose that sensations of these two kinds have severally been experienced together with wholly void extension so long and so invariably, as to have become united into extended sensations of the two several kinds, so that they have now become perceivable by us only as extended sensations, and the separability of their constituents conceivable only by conscious abstraction. What follows? Simply this, that the united or combined state of the perceptions so reached is the very state which for us now is the state in which they are invariably experienced, that is, in which they

are ultimate data of our experience. In other words, we have absolutely no data which will enable us to go, as it were, behind them, by construing their genesis to thought, and consequently that the empiricist's hypothesis is a piece of empty transcendentalism.

§ 2. Perception of their extension not due to Association.

§ 3. This, then, is all that we originally know of space, namely, that it is a perceptual co-element with visual feeling and with tactual feeling; and as such co-element, it is no more than an extension of those feelings in length and breadth. We neither perceive it as extension in depth, the third dimension, nor do we perceive it as length and breadth distinguished from depth; it is, as it were, open to receive the perception of depth, if it should arise. Neither are length and breadth perceived in it as contrasted with each other, but only as involved in the simple perception of extension. The contrast of length with breadth is due to a later discrimination of the originally perceived extension, a discrimination which is probably simultaneous with that of their common contrast with depth, the so-called third dimension of space, and therefore also simultaneous with that synthetic harmonising of the data of different senses (sight and touch) by means of association, which, as we shall presently see, gives us at once the perception of depth and the perception of solid bodies.

§ 3. Extension of two dimensions in Sight and in Touch.

Another feature must be noticed in the perception of extension, a parallel phenomenon to what was remarked in the case of time; I mean the non-isolation of any finite portion of the visual (not tactual) field. I do not speak of the non-isolation of superficial extension in relation to

depth; there is no reason to suppose that visual extension is perceived as non-isolated in this direction. I mean the non-isolation of any portion of visual extension with regard to contiguous portions of extension in the same dimension. Wherever we draw the line round an object of sight, there is always spatial extension in the same two dimensions beyond it; just as in the case of any portion of time, there is always time before it and after it. Portions of visual extension are not perceived isolated; it is attention which distinguishes them, by difference of content, from other portions of extension. There is in visual perception a variegated surface, as there is in time a variegated stream; and the variegated surface is also a portion of the variegated stream. There is continuity in visual perception, both *ad intra* and *ad extra*, just as there is in the time-stream of consciousness generally.

But this fact of continuity, or difference without isolation, is not equally found in tactual sensation. Touch sensations have continuity only *ad intra*. What we feel in touch we feel as extended, that is, as a patch, larger or smaller, of extended hardness or tangibility, but we have no inkling of the parts adjacent. We feel an isolated bit of hardness; there is no suggestion of surface beyond it, it is not felt as continuous *ad extra*. At the same time, it does not forbid the perception of continuity *ad extra*; it simply says nothing about it. Just as visual and tactual extension say nothing about depth, the third dimension, so tactual extension says nothing about continuity *ad extra* in its own dimensions. This peculiarity of tactual sen-

sations, their being continuous *ad intra* but not *ad extra*, combined with their specific sense-quality, is their special contribution towards the construction of our full notions of space and of matter.

Both sight and touch, then, involve spatial extension in two dimensions, but involve it in a markedly different manner; sight involves it as a continuum both *ad intra* and *ad extra*, touch only *ad intra*. If we always exercised these two senses separately, that is, at different times from each other, we should not, in perception alone, identify the spatial extension given by them separately as the same, or the portions of extension given by touch with any of the portions distinguished in that given by sight. The identity of the spatial extension perceived through these two channels is the result of a comparison between the two kinds of percepts when they are given simultaneously. We then see, that in one and the same portion of spatial extension there is room for both kinds of feeling or content; and not only so, but that in both kinds of feeling or content, taken together, there is *not* room for more than one and the same portion of extension. This is the first step in our building up both the notion of a single space and the notion of matter filling space; and it plainly depends upon the simultaneousness of sensations of two kinds, sight and touch; that is, it depends upon the perception of a single continuous stream of time, in all perceptions which form part of a single consciousness. For if the perceptions of these two senses were not sometimes simultaneous, as for instance when I touch and see a hard coloured surface, nothing would compel me

§ 3. Extension of two dimensions in Sight and in Touch.

to identify these different contents with one and the same portion of spatial extension; there would be room, so to speak, for more spatial extensions than one; since I do not *tactually feel* the spatial extension in colour, nor *see* the spatial extension in hardness, but perceive each sensation separately as extended. The fact that the spatial extension is common to both is the result of association, or combination of perceptions coming from psychologically different sources, founded on the fact immediately perceived, that the portion of time occupied by each is one and the same.

§ 4. The terms *Formal* and *Material* Elements.

§ 4. Unlike as time and visual extension are in other respects, to which I shall presently recur, we have already seen that they are similar in one most remarkable feature. They are both continuous *ad extra* as well as *ad intra*, that is, are perceived as distinguished by differences in their content into portions, which are continuous with other portions beyond them (this is their continuity *ad extra*), and continuous within themselves, each portion being distinguishable by differences in its content into smaller portions, either in actual sensibility or in thought, and these again into still smaller portions, no one of which is separable from the extension beyond it (which is their continuity *ad intra*). This feature of double continuity is common to both. It is that feature which justifies the expression *Form* as applied to them both. The time which, when filled with feeling, is continuous in both directions, so that the different feelings are never felt otherwise than as portions of that continuous time, is properly called a *form* in which feeling comes to us. It is moreover the pre-

supposition of all other forms of feeling as portions of time, that is, of all other sequences or arrangements of feelings as successive. The same is true of visual extension; it is the *form* in which all visual feelings come to us, and the pre-supposition of all further forms which visual feelings, and other feelings in spatial extension which afterwards come to be combined with them, can assume.

In contradistinction from time, and from visual extension, together with those other cases of extension which combine with it, that is, from space generally, the feelings which are the content of these two forms are called the *matter*, or material element, in perception. The term *matter* of course is here used in a very different sense from physical matter, as it is called. It means feeling as the content of continuous duration or continuous extension, the discreteness of which into distinguishable but inseparable portions is due to its varieties. Without the discreteness we should not be aware of the continuity; and without the continuity the discreteness would not be *form*. Form is an order, an arrangement, a nexus, of discrete parts. The elements which give the continuity in concrete perceptions are those of duration and spatial extension. These therefore are the formal elements of perception, as distinguished from its material element, feeling, which is the source of its discreteness.

So much by way of justifying the nomenclature here employed, the naming time and spatial extension the *formal*, and feeling the *material*, element in perception. These names are applied to them derivatively, from their analogy with cases of

§ 4. The terms *Formal* and *Material* Elements.

common experience, with the figure, outline, shape, of pictured or of solid objects. It does not follow, indeed it is impossible, that their relations to each other should be the same in every respect as the relations between form and matter in cases of common-sense experience, from their analogy with which they derive their names. But, such being granted to be the derivation of the terms, it follows that we are bound to show what special relations they express in their new application, relations which are analogous but not identical with those which the terms denoted originally.

§ 5. Combination of visual perceptions with perceptions in Time only.

§ 5. But now observe, in the next place, how radically different a world it is, to which we are introduced by the phenomena of visual extension, how different from the world which is perceived in time alone. I do not mean by virtue of its content of special feeling, its matter, light and colours, but by virtue of its form, spatial extension. It has the feature of continuity common with time, but how different is the mode of its continuity. Every portion of its continuity is simultaneous, co-existing with every other portion; whereas, in the continuity of time, every portion is successive; and although some features in the succession are co-existent with others, yet all alike are changing, or (in figurative terms) moving, rising into consciousness and dropping behind into the past, and connected by their overlapping fibres with the portions which are to rise into consciousness next in succession.

This phenomenon of time-sequence we have already examined. We have seen that it is a phenomenon independent of visual perception and

visual extension. We have seen that its sequence is given by its content coming into, continuing in, and passing out of, an empirical present moment of consciousness; and that its continuity in sequence is given by the fact of some of the feelings, which are its content, overlapping others. True, we characterise it as a time-sequence, we know that it is a time-sequence as distinguished from a time-constancy, only by distinguishing the content of a reflective moment from the process which is the perception of it, and this we do in a later moment of reflection; but originally, that is, in the first moment of reflective perception, we perceive the content changing, before we pass the judgment which recognises the distinction of change from unchange. In the simplest moment of reflective perception we perceive simple feelings coming into and passing out of consciousness. And perceiving them overlapping, we perceive them as a continuous stream. Their relation to one another in consciousness (which does not mean as compared to consciousness) is their sequence and their continuity. A vast number of feelings is in this case; they have no other form than time.

Suppose now, that we have had experience only of feelings of this sort, feelings in the form of time; a supposition which of course is not intended to represent historical fact, but is made simply in the interests of analysis. Suddenly, imagine, feelings of sight appear among them; an expanse of light and colours. New kinds of feelings we should have experienced before; but a new kind of form would be unexampled. The visual expanse of light and colours would be a revelation. Yet the new feelings

§ 5. Combination of visual perceptions with perceptions in Time only.

must all be feelings in time also, since, if they had no duration they would not be felt at all. Each feeling of sight, therefore, appears in consciousness and passes away, leaving a trace in representation, just as do feelings of the former class. I speak, of course, of a single visual feeling, artificially distinguished as occupying a short duration, as by opening the eyes for a moment and then shutting them, not of an uninterrupted succession of such feelings, as in gazing on a fixed object or a landscape; though in this case too the uninterrupted perception must still be construed, psychologically, as a succession of perhaps inappreciably different moments, continuously occurring.

But besides its duration, each feeling of sight has visual extension also; that is, it spreads out in breadth and length of space, right and left, up and down, with indefinite outline and varied content, the whole of it being in the first instance simultaneously present to consciousness, for a longer or shorter duration of time, as the case may be. In the first instance, I repeat, the whole is simultaneously perceived. That is to say, if we take any portion of visual extension, the opposite boundaries of that portion are present not successively, but simultaneously, however indefinite their outline may be. This is shown by the fact, that we can pay particular attention first to one boundary and then to another, traversing the whole portion by successive acts of attention, in any order, backwards or forwards; the whole portion remaining before us, while we so traverse it. The acts of attention are successive, but the surface traversed is constant, the parts not attended to losing vividness, but not

vanishing; and this experience may be repeated with any portion of visual extension. The constancy of visual extension in time is not introduced by us, that is to say, is not due to the arresting action of attention, as is the case in attending, for instance, to some striking but particular feature in the stream of consciousness, and so prolonging its duration; but it is found as a general feature in, and inseparable from, every visual perception, before we attend to its parts, and pass by attention from one side to another. Attention interprets the constancy in the case of visual extension, as it interprets the flow in the case of time; but it produces neither the constancy nor the flow.

§ 5. Combination of visual perceptions with perceptions in Time only.

§ 6. Another point must now be noted. If we imagine consciousness in time alone to be a stream, as we have hitherto imagined it, then the direction of the visual surface must be imagined as transverse to the direction of the time-stream. I say *if we imagine*, because it is only by picturing consciousness, that is, expressing it in terms drawn from visual extension, that we speak of it as a stream, a flow, a movement, at all. Consciousness in time alone is not motion but change; consequently not a stream, which is a motion of solids. It is the accession of visual extension to time-change which alone permits us to think of time-change first as motion, and then as a stream. We must not mix up the characteristics drawn from space with those which belong to time alone. When we call consciousness in time a stream, we must not imagine that it has motion; neither must we imagine that it has thickness when we speak of it as a rope of many fibres. These are images transferred to con-

§ 6. Time not a Space-dimension.

sciousness in time from our more complex knowledge of objects in time and space together. Motion itself is change of place during lapse of time. There is no motion without both elements, time and space. But this pre-supposes the independent reality of change in time alone, which change we first isolate in thought for purposes of analysis, and afterwards picture as a stream for purposes of description.

Accordingly, when we picture feelings in time as a stream, and contrast this with feelings occupying visual extension, we must also imagine it as flowing at right angles to the visual extension, which otherwise would not be picturable as having all its parts simultaneous. But we are not thereby attributing direction in space to the time-stream, any more than we attribute extension in space to it by calling it a stream, which is a spatial object. Imagining it as a stream, and imagining it as flowing in a certain direction, are merely parts of the way in which we picture the change of feelings in time, not essential parts of the change which is pictured. It is a case of nomenclature analogous to that of the material and formal elements noticed above. We have in fact no language but that of common sense, language which, historically speaking, is post-conceptual but pre-philosophical, with which to speak of and describe the metaphysical elements which are the analysis of common-sense objects, and therefore wholly unknown to common-sense thinking. This is one of the circumstances which most powerfully tempt so many well-meaning persons to philosophise by what is sometimes called "light of nature."

§ 6. Time not a Space-dimension.

Time, then, is no dimension or direction of space; it is not, as some have suggested, its *fourth* dimension; but is entirely heterogeneous, as a formal element, from the formal element of spatial extension. Neither is it, as some might hastily imagine, the *third* dimension of space; as if the time-stream flowing at right angles to the visual surface, and the succession of many visual surfaces passing away one after the other, gave us the idea of depth, by the superposition of these surfaces, in time, one upon the other. In perceiving visual extension we do not also imagine it as transverse to the stream of time; consequently we cannot imagine it as forming a thickness by layer succeeding to layer. This would not give, but pre-suppose, a perception of depth; and this perception is not given in, or prior to, visual extension. We have still to enquire how this perception is added.

§ 7. The third dimension of Space. —The perception of it rests on Association.

§ 7. The question, then, is, how the third dimension of space comes to coalesce with that visually perceived extension, in which not more than two dimensions, as they are afterwards called, are perceived; how we come to the full perception of space in three dimensions, and to regard it as a single homogeneous unity. In doing this we must, I think, have recourse to association, the association of ideas (as it is called) in our minds, resting on and conditioned by the combined and simultaneous exercise of some other sense or senses together with that of sight.

It is from space occupied by content in three dimensions, as a single homogeneous unity, that we start in these enquiries; I mean, that this is

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our common-sense or pre-philosophic datum, which we find before us, but unanalysed, when we first begin to philosophise. We do not at first suspect that it is a compound due partly to association, and has, as it were, a history behind it in experience. Geometry does not lead us to suspect this. Geometry starts with space abstracted from sensible content, and indifferent to any kind of it, as its datum, but still takes it as a homogeneous unity, distinguished or distinguishable into parts by differences which are likewise abstractions, being abstract images drawn from perceived differences in the content of common-sense space. It thereby creates in thought certain determinations of space which are the basis of geometrical figure, and which taken by themselves are abstractions; I mean the determinations called points, lines, and surfaces; points having place but no magnitude, lines having length without breadth, and surfaces having length and breadth without depth. I speak of lines and surfaces *per se*, as if they were abstract entities, irrespective of the so-called dimensions of space in which they may lie; as, for instance, a line may require two dimensions of space if it is a curve, or three if it is a spiral; and a surface three if it is curved, yet without possessing thickness or depth in itself. The so-called three dimensions of space are a case of determination or figuration of a similar kind; their characteristic being, that they are a mode of it which is exhaustive of space in the entirety of its extent, actual or imaginable. They are derivable directly from the three pairs of directions, which seem to meet in the observer when he looks round him upon the common-sense

world, these pairs being—forwards and backwards—right and left—upwards and downwards. Geometrically taken, these three pairs are figured by three axes of co-ordinates, that is, three straight lines cutting each other at right angles in one and the same point, and continuable in all six directions *in infinitum*; by reference to which three axes the position of any point, or system of points, in space, may be ascertained. Abstract space as a single homogeneous unity is plainly a pre-requisite for the imagination or conception of all these determinations, supposing us to start in pure geometry, as we start in metaphysic, from the data of common-sense experience.

Space, therefore, as a single homogeneous unity, whether concrete as in common-sense experience, or abstract as in pure geometry, being pre-supposed by all these abstract determinations or figurations, cannot be conceived to have grown up out of them. *They* are not the perceptions out of which homogeneous space in three dimensions has been formed. If space has a history of association behind it in experience, still *these* cannot be the original parts which association has combined into that single homogeneous unity. We have not built up space out of points, lines, and surfaces in the first instance, notwithstanding that we can distinguish points, lines, and surfaces in it, as boundaries between its parts, when once it has been built up. The mathematician as such has nothing to say to the question of the original formation of the idea of space. If it is not originally that single homogeneous unity occupied by content, which it appears to be as a pre-philosophic datum, then

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its original parts must be first subjectively discerned from one another in that datum; that is, the question is one, not for the mathematician, but first (it may be) for the psychologist, and ultimately for the metaphysician. The pure geometrician's work begins with the figurations which he introduces, by thought, into this originally single and homogeneous extension.

Kant, it will be remembered, does not admit the possibility of any such history depending on association, behind the full idea of space in three dimensions. He takes space as being such an unity, and then accounts for it as a form of perception, or *Anschauung* as he calls it; a form inherent in a function of the mind, a form in which the mind works while perceiving certain sensations or sensible material, and as the mode in which it perceives them. So far as its own form was concerned, it was projected whole. But then Kant had provided, in his theory, for an agent to which he could refer it; he supposed the existence of a non-phenomenal agent working under certain laws or forms of its own, one of which was Space, which it imposed upon sensations in receiving them. Those who reject hypotheses of this kind have necessarily to find some other account of space; I mean always, supposing them to philosophise. For the mathematician may be content to stop short at space as a datum. But for the metaphysician, the rejection of a transcendental psychology, like Kant's, means nothing less than re-opening the question, whether space, the prephilosophic datum, is analysable or not, and if analysable, whether it is or is not analysable into

parts which were originally separate from one another, and have been combined only by means of a historical process of association. I am of course speaking of space subjectively taken, or what is commonly called our knowledge or idea of it, which is the space of actual experience; the question being whether this experience is analysable into separable constituents, as well as into elements which are distinguishable but inseparable from each other.

Now this question, so far as it is one of subjective analysis only, and apart from questions (which will meet us farther on) concerning the psychological genesis of the perceptions analysed, is readily answerable. It must clearly be answered in the affirmative, when we consider that the sensations which contain or involve a direct and immediate perception of spatial extension are of two kinds only, those classed as sensations of sight and touch; that neither kind gives us any of the mathematical boundaries of space, I mean points, lines, and surfaces, by themselves, but only along with and as determinations of spatial extension itself; and that neither of them gives us space as a whole in any single sensation. Sensations of sight cannot, for they lack the third dimension entirely. Those of touch cannot, for the surface actually touched at any one time is small, and the sensation tells us nothing of extension beyond that actually touched surface; although it is perhaps conceivable, that we might, by repeating, continuing, and combining single sensations of touch, build up the notion of a space in three dimensions, without having recourse to the sense of sight at all. In

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this case, association would come in between separate sensations of the sense of touch; in the other, it would come in between separate sensations belonging to the two senses of touch and sight, as well as (in some cases) between sensations of each sense separately.

§ 8. Not given by Sight and visual adjustments alone.

§ 8. Taking visual extension first, it is clear that, by itself, it gives us no notice of the third dimension of space. It is true that, when using both eyes, we see both the receding sides of a solid object, when not too large, a piece of cardboard for instance held with its edge towards us. And with a single eye we can see the receding surface of a wall, along which we look. And the shape of small solid objects seems to be perceived immediately, by means of the two different images said to be projected on the two retinas. But so far as vision alone goes, there is nothing to distinguish rays transmitted by a receding surface from rays transmitted by a curved surface, or by a flat surface facing us. The sensations transmitted by all surfaces alike are but so many different sensations in a visual expanse, the differences of which sensations there is nothing to connect with the different directions, in space, of the surfaces by which they are transmitted. They are capable of furnishing interpretations of distance from the eye, when once we know that there is such a thing as distance in that direction; but they are not capable, alone, of giving us the notion of distance from the eye originally.

But the exercise of vision is often, if not always, accompanied by sensations arising from the muscular movements adjusting and focussing the eye,

whether these movements are voluntary or only consensual, and by sensations of effort in actively looking, as well as in passively receiving impressions. And these various sensations, it may be thought, combined with the perception of visual extension which they accompany, are sufficient to give us a perception of the distance of objects from the eye, that is, of the third dimension. It is true, that the different distances of objects from the eye are the real condition of their requiring different adjustments of the organ, in order to their being perceived with the greatest clearness possible. But it does not follow, that the sensations which accompany active looking originate a notion of those different distances, that is, of there being such a thing as distance from the eye, or even of the existence of the eye as a point of departure. The eye does not see itself in vision ; what it sees is an expanse of light and colour. The distance of points or portions of this expanse from each other, as given by the purely visual part of the whole perception, may very well be also judged of by means of the sensations of adjustment and looking, and the two sources of information used to corroborate or to correct each other. It has, I believe, been proved by psychological experiment, that the point at which differences between sensations of motor adjustment of the eye cross the threshold of consciousness, that is, first become perceptible, coincides with the point at which differences between perceived magnitudes of extension cross it ; or as it may also be expressed, that the first or lowest perception of change in magnitude of an observed visual object, and the first or lowest percep-

tion of change in adjustment of the eye, coincide; from which the conclusion is drawn, that sensations of adjustment of the eye are always involved as elements in our space perceptions.[1]

But this does not show that these sensations give us the element of extension in those perceptions; rather the contrary, seeing that this element of extension is pre-supposed in those magnitudes, differences between which are what the differences in sensations of adjustment of the eye coincide with. Extension is necessarily involved in the perception of magnitude, but not necessarily in the sensations of adjustment of the eye; the common element in different sensations of the latter kind is not extension, but some feeling which of itself, even in cases of looking sustained by volition, where it becomes a feeling of effort or tension, is a feeling in time only, and the differences of which are differences in degree of intensity. Still less does it show, that sensations of adjustment and looking, combined with the differences perceived in the visual expanse, are sufficient to give us the perception of distance from the eye, or of objects from each other in the line of that distance; I mean, originally. To do this they must of themselves involve the perception of the third dimension of space; but this is impossible, unless they involve also the two first dimensions, which I have tried to show is not the case.

Let us imagine an instance. Suppose we are witnessing, for the first time, what we afterwards call a smaller solid object passing in front of and

[1] Professor Wundt's *Philosophische Studien*. Band I., Heft 1, p. 23. In Wundt's own article, *Ueber Psychologische Methoden*.

partially hiding a larger one, a case in which the proper focussing of the objects would require different adjustments of the eye. This would not of itself give us the notion of distance in a line from the eye, but would appear as a series of changes in the visually perceived expanse, (the third dimension has not yet been perceived), accompanied by certain sensations of effort, which we should then seek to harmonise with the visually perceived changes, so as to discover the law of their connection. Clearly this would not give us a perception of distance from the eye. The sensations of adjustment arise in executing movements, but they are not perceptions of movement; it no more follows, that the eye perceives motions of solids because, in seeing, it executes such motions and has perceptions arising from them, than it follows from its being a solid, that, in seeing, it must see solids. We can neither perceive the sensations of adjustment as bodily motion, nor connect them with that perception, until we have first arrived at perceiving bodily motion itself. The organs whose movements give us the sensations of adjustment are not the object but the condition of those sensations. But in order for them to give us the perception of depth, through that of motion, it would be requisite that the movements of the organs should be their objects, whether or not they were their conditions also. And the same holds good, *mutatis mutandis*, of the sensations of effort in looking.

§ 8. Not given by Sight and visual adjustments alone.

§ 9. It will be convenient to speak next of certain other sensations which give indications of distance or direction in three-dimensional space, in

§ 9. Nor by perceptions of sound and temperature.

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combination with other senses. I mean those which are involved in the perception of sounds, and of external temperature. We do, as a matter of fact, conjecture the direction, and frequently the distance, of the origin of a perceived sound, while hearing it; and similarly the direction, and often, though less accurately, the distance of the origin of a change in perceived temperature, when felt externally. It is, I believe, held by some psychologists, that the ear is furnished with a set of nerves or neural arrangements capable of these discriminations, distinct from those which are sensitive to sound. And nerves sensitive to temperature are distributed over the surface of the body, whether distinct or not from the nerves of tactual sensation, which are likewise general in their distribution.

But be this as it may, what I wish to remark is, that the same reasoning applies to the perceptions of distance and direction when thus originated, or rather suggested, which I have applied to the corresponding perceptions in the case of sight. Just as the sensations of adjustment of the eye in seeing are not perceptions of motion, but are sensations or perceptions occupying time only, so in the case of sound, the sensations or perceptions of distance and direction are, of themselves, perceptions occupying time only, and the notices which they give of distance and direction pre-suppose a knowledge of three-dimensional space, already acquired from elsewhere; pre-suppose that we have come to think of our own organism as a solid body, in and surrounded by three-dimensional space, in which moreover other solid bodies are also contained.

§ 9. Nor by perceptions of sound and temperature.

Similar but not quite the same is the case of sensibility to changes of temperature. The nerves subserving this sensibility, being distributed over the surface of the body, most probably convey the perception of extension; but they tell us no more about it than the simplest cases of touch tell us, or than they would tell us if they were themselves nerves of touch. That is to say, any indications of distance or direction which they give suppose a knowledge of the third dimension of space generally to have been already acquired, which, as we shall see, touch alone does not procure. These sensations, like those of touch, are in themselves surface sensations and no more. It is a case analogous to that of taste, where by the organs of the mouth we touch and taste the same object; only here without the power of touching the object all round. If then, the sensibility to external changes of temperature is considered as giving the perception of extension at all, it gives no more than the simplest case of tactual sensibility gives; if it is considered as discriminating differences of distance and direction, it can be so only as an interpretation of an independently acquired knowledge of space in three dimensions.

§ 10. Different meaning of *Vision* in psychology and in metaphysic.

§ 10. Another quite different view of vision is sometimes taken. Vision, it is argued, taken by itself, abstracting from sensations of adjustment, is incapable of giving even the perception of a continuous expanse. The sensitive surface of the retina, it is said, on which the rays of light mediately impinge, forms a minute network of nerve fibres, transverse to the perpendicular ends of certain rods and cones of nerve matter, so that in the sensitive

§ 10. Different meaning of *Vision* in psychology and in metaphysic.

surface itself there are left spaces which are not sensitive to light. The ether vibrations, moreover, which impinge upon this discontinuous surface, are not a continuous stream, but impinge upon it in separate minute pulsations. It is therefore said to be impossible, that we should really see what we think we see, a continuous expanse of colour; what we really see is a number of coloured patches, each momentarily existing, that is, discontinuous in time, and moreover separated from each other in space by vacuity, answering to the discontinuous surface of the retina. The continuity of these patches in an extension is a notion imported from elsewhere, and if supposed to be *seen* is an illusion.[1]

But in the first place it may be replied, that, even on this showing, the patches, taken severally, are continuous each within itself; so that continuous extension is perceived, though not the continuous extension of the whole field of vision. The discontinuous patches of colour are still patches, that is, are not mathematical points, but extended surfaces, just as the portions of a touched surface are, to which, when so conceived, they bear a striking analogy. So that, even supposing the patches to be the only things originally seen, vision would still be a perception of extension, being a perception of extended sensations, each continuous *ad intra*, and sight would still rank along with touch, as one of the only two senses which give us a direct and immediate knowledge of it.

[1] One form of this argument may be seen stated, with his well-known force and clearness, by the late W. K. Clifford, in his paper, *The Philosophy of the Pure Sciences*, contained in his *Lectures and Essays*, Vol. I., pp. 257—8. I do not profess to reproduce Clifford's argument as it stands. The whole Lecture, though popular, may be read with advantage.

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But a more complete reply to the foregoing argument is this. Those who use it mean one thing by *seeing*, and metaphysicians mean another. The discrete patches, which those who use this argument say are the only things originally seen, are really never seen at all, that is, never seen discrete, or as patches. What is really seen is the whole field of vision; and it is seen as a *continuum*. The discrete patches which are parts of that continuum are never seen, but inferred to have been seen, discrete; and inferred, not immediately from closer attention resulting in analysis of the actually seen continuum, but from our subsequently gained knowledge of the structure of the retina, and of the vibrations of the ether, knowledge which has been acquired later than, and partly by means of those perceptions of continuous expansions, which are the original data of the sense of sight.

Now if the words *seen* and *seeing* were used in the same sense by both parties, the difference of their views would be irreconcilable, inasmuch as the one infers that something has been actually seen, namely, the patches as discrete, which the other asserts never is seen. But if the words are used by each in different senses, then it is possible, that the inference of the one and the assertion of the other may both be true, in the sense which each attributes to the words used; and the question which then results is, which of the two has the best right to attach the meaning he does to the words. Let us, then, see what different meanings are attached to these words, and why.

Seeing means, with the metaphysician, the consciousness of any visual phenomenon which is

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actually present, and which includes neither a recalled, nor an imagined, nor an inferred perception. So understanding the term, he then takes his stand upon the phenomena of consciousness, as they are actually and immediately known. In the case of sight, a continuous expanse of varied light and colour is the lowest and simplest phenomenon ever actually present in this way. It is true that this phenomenon, like all perception, is a process, and a process involving representation and retention in memory, as well as what is called presented sensation, though without repetition or recall of anything which has once faded from immediate consciousness. This was shown in a previous Chapter, when we were dealing with the continuity of consciousness in time. But what is the consequence? Not that a complex phenomenon like the continuous visual field is not the original and simplest object seen, but that the original and simplest object seen is a complex phenomenon. It is that phenomenon from which the whole meaning of the words *sight* and *seeing* is derived.

But *seeing* with the psychologist means something quite different. His purpose is to trace the conditions of consciousness, referring some to the percipient, or Subject, others to the world external to the percipient, both of which are assumed to begin with; and accordingly *seeing* means with him the immediate result in consciousness (whatever it may be) of the simplest and lowest action of an external agent on the organ of vision, apart from any reaction of the percipient agent or organ, except what is involved in the apprehension or reception of that lowest and simplest action, which in this

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case is a vibration or vibrations falling on one or more minute portions of the retina. The action, argues the psychologist, is physically discrete; the parts affected are physically discrete; that is, we must see discrete patches of colour in the first place, before combining them into that continuous coloured expanse, which we falsely imagine is actually and immediately seen.

Assuming, then, that the process is real, and the result real, the discrete patches of colour must be real constituents, psychologically determined, of the coloured expanse which, for the metaphysician, is the immediate content or object of vision. This the metaphysician will not hesitate to admit. He demurs only to the conclusion, that, because they are shown by psychology to be real constituents of that coloured expanse which for him is the immediate object of vision, therefore they are themselves, in their discreteness, the only objects which are immediately seen, while the coloured expanse, of which they are constituents, is not seen, but either imagined or inferred.

I shall return to this point presently, with the hope of showing, that the reality of the constituent patches is perfectly compatible with the metaphysician's view of the object immediately seen. First, however, what I would insist on is, that by *seeing* the psychologist means the inferred result of a physical process, the metaphysician a state of consciousness immediately perceived; and I contend, that the metaphysician's usage is the stricter of the two. Some such usage, moreover, is implicitly adopted by the psychologist himself, when he attempts to show that his discrete patches of

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colour, though he knows of them only by inference, are yet the only objects immediately seen; since he must plainly attach some independent meaning to the term *immediate perception*, in order logically to exhibit his discrete patches of colour as a case to which it is applicable. This singular confusion of thought, on the part of the psychologist, arises from his assuming, to begin with, the existence both of an external world and of a percipient Subject affected by it; whereas the metaphysician assumes nothing but the content of consciousness as a datum to be analysed, in the expectation of finding, by its analysis, how all concrete notions are built up, including those of an external world and percipient beings, as objects of common-sense experience. It is precisely the nature and relative value of our ideas of these and other existents, unhesitatingly assumed by psychologists and empiricists generally as *per se nota*, which metaphysical analysis is directed to discover. Hence the importance for philosophy of distinguishing immediate sense-perceptions from perceptions which are arrived at by means of inference, or which include constituents due to recollection, inference, or imagination.

Taking up the point to which I said I should presently return, it must not be supposed that the metaphysician denies the existence of the discrete patches of colour; what he denies is, that they are ever immediately seen discrete. They are not first perceived and afterwards combined, by association or otherwise, into a continuum. No amount of attention will enable us to *see* them. To say that they are what we actually see in

vision is like saying that, when we hear a sound of a certain pitch, this sound is not what we really hear, but certain minuter sounds corresponding to the several vibrations of which the wave which strikes the ear is composed.

Nor will it answer to maintain, that the discrete patches of colour are the sensations, by the combination of which a perception of a continuous field of vision is composed. The patches of colour must be and are thought of as continuous within themselves; that is, as being themselves perceptions, and not merely sensations. Sensation, it has been shown above, strictly and properly means the sensation-element of perception. Imagine a sensation by itself, and you *eo ipso* imagine it as a perception, since you cannot help supplying the formal element. As sensation alone it would be a mere abstraction, and could not so exist. This is not the case with the patches of colour spoken of. They have a real and empirical existence. The question is, how this real existence is to be conceived. The answer has already been implied. They exist, not as perceived metaphysical elements, but as minute components, possibly empirical minima, of visual perception, psychologically inferred but not separately seen.

Their relation to the actually perceived expanse is closely analogous to that of the minute portions of time-duration, which can be distinguished by mathematical thought as components of a single empirical *minimum perceptionis*, as explained above in Chap. II., § 5, on *Reflective Perception*. In both cases we are dealing with perceptual components of perception, which are either too small,

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or too closely implicated with others, to be perceived separately. The difference is, that there we were dealing with minute parts of time, without knowing of any special part or function of the nerve organism, to which to refer them ; here we are dealing with minute portions of spatial expansion, and have access to the peripheral extremity of the organ concerned, namely, the retina.

Our knowledge of the organ and its environment rests ultimately, *inter alia*, upon visual perception as it is actually experienced. When we start again from this knowledge, as we do in psychology, and take the organ and its environment as our means of explaining the real genesis of visual perception, then the discrete patches of colour mark a step in the process which results in the perception, but a step which in no case lasts long enough without changing, to enable it to come separately into consciousness. The eye, we must suppose, is perpetually, rapidly, and insensibly shifting its position, to say nothing of a possible radiation of stimulus from one minute portion of the sensitive surface to another; so that, before any the minutest portion of the retina has lost the trace of one impression, it has begun to receive another impression coming from a collateral pulsation. Hence no vacuities answering to the interstices of the sensitive surface are perceived. Even the existence of the blind spot in the retina is made known only by experiment. The perception from the first and throughout is a continuum. And it is on this perception, as the metaphysician argues, that we must take our stand, if we mean to base ourselves on the facts of consciousness as such,

that is, on the facts as they are actually and immediately experienced. Facts experienced in this manner, neither involving assumptions, nor resting on inference, are those which philosophy requires, as alone affording a secure basis for further knowledge.

CHAPTER V.

OBJECTS IN SPACE OF THREE DIMENSIONS.

§ 1. Tactual and Muscular Sensations.

§ 1. Let us next examine the sense of touch, supposing it exercised in isolation, and without aid from any other sensations than those of effort, muscular movement, and temperature, which are in fact all but inextricably bound up with it. We shall find, I think, that this sense gives us knowledge of extension and resistances in definite groups, which we afterwards call solid bodies, in giving us sensations the grouping of which is spatial, consisting in recurrences of sensations identical not merely in point of kind, but also in point of the space which they occupy; so that, in experiencing them, we perceive a return to the same part of the extension from which we started. At the same time we shall find, if I mistake not, that this perception of spatial grouping does not give us the perception of a surface as distinguished from a solid, or by itself tell us anything of the separate existence of a solid body as the object of those spatially grouped sensations; still less that such a body occupies a portion of space in three dimensions extending beyond the body actually felt. Touch, in fact, will be found to give us a certain inchoate, and what I may call expectant,

knowledge of solid bodies and three-dimensional space; that is to say, a knowledge of certain definite groups of feelings of resistance, these groups being partly formed by way of association of impressions originally separate.

The tactual sensations, or impressions of touch proper, as distinguished from those of effort or muscular sense, are sensations or perceptions of the qualities of what we afterwards call surfaces, as hardness and softness, roughness and smoothness, wetness and dryness, sharpness and bluntness, sensations which we receive either from solid bodies pressed against our own, or from parts of our own bodies pressed against others, our own effort in exerting or resisting the pressure, and the minute motions or shiftings of the parts in contact, involved in the pressure, being abstracted from. The sense of effort and impressions of the muscular sense include the various sensations experienced (1) in moving a limb or other organ, (2) in causing a limb to exert pressure on, or resist pressure coming from, external objects. It is unnecessary here to enter again upon the question, whether any part, and what, of these sensations is properly a feeling of innervation (*Innervationsgefühl*), as it has been called, that is, a feeling immediately accompanying an efferent nerve action, irrespective of resistance to that action, or whether all sense of effort arises, like other sensations, by way of afferent nerve action, set up either by pressure from objects external to the body, or from the muscle, or other tissue, upon which an efferent nerve action has previously been directed. The decision of this question does not concern us here,

§ 1. Tactual and Muscular Sensations

since on either supposition the contribution made by these sensations to our knowledge of space remains unaffected.

The impression of touching a resisting surface with a single finger-tip is analogous to what, in the case of vision, is an inference only, I mean to one of those patches of colour spoken of above, only on a larger scale; it is like them in being a patch of sensation, but unlike them in being itself perceived, not an inferred *minimum sensibile*. We feel what I will call a surface-sensation, into which spatial extension enters as an element inseparable from the sensation. Not that this perception (a sensation with its formal element, it will be remembered, is a perception) gives us any knowledge that we are touching a surface; no conception of surface enters into the perception, nor any distinction of it from the as yet unperceived direction of depth; the perception itself alone, incomplete though it be, is the content or object immediately present in consciousness. I use the term *surface-sensation* or *surface-perception*, merely to designate the perception intended, and to indicate that spatial extension is an inseparable element of it. The knowledge, that such perceptions are given by surfaces of solids in contact, is a knowledge more complex and acquired later than the first or simplest experiences of the perceptions themselves; and these first or simplest experiences it is, which we are now investigating.

§ 2. Synthetic examination of tactual perceptions.

§ 2. Let us, then, suppose a series of experiences of the sense of touch apart from sight, increasing in complexity, but always with abstraction from our later acquired knowledge, namely, that the sensations are conditioned on the contact of solid

bodies, and see what features it contains solely as tactual experience. Seven cases my be distinguished, increasing in fulness and complexity.

1. If I let my finger-tip rest upon the resisting surface of a solid body, say an empty lidless square box, keeping the finger still, I receive a sensation of resistance occupying extension, continuous *ad intra*, but of indefinite outline; so that, if I had no further knowledge of extension, I should not be able to characterise it as indefinite; it would be a sensation of extended resistance and nothing more. The sensation would also be continuous in time; for the presentation of the first moment becomes a memory, but this presentation is continuously renewed, no distinction of moments from one another being given in the perception, so that presentation and representation are concomitant throughout the whole duration of the experience, in the manner shown in an earlier Chapter in the case of perceptions in time only. Here, then, we have a perception of extended resistance, without definite outline, and without any perception of a surface being touched, distinct from the perception itself.

2. Suppose in the next place, that I move my finger-tip gently along the surface on which it rests. Here we have a certain differentiation of the sensation. The sensation becomes sharper on the side towards which I move the finger, and less sharp on the other side. This involves the outline of the extension occupied by it becoming more definite on the sharper side, and less definite on the other. That is to say, there are concomitant variations in the content and in the form of the perception. There is, as yet, nothing to show or

give the impression of motion; nothing to suggest that the extension or outline is elongated; or that portions of extension beyond the first portion, and beyond each other, are successively pressed by the finger as it moves. True, I have concomitant sensations of effort in moving the finger, and these are differentiated from those sensations of effort which I had when I kept the finger pressed upon the surface without moving it. But these sensations, being as yet undistinguished from the original sensation of resistance, as sensations which, when taken by themselves, are sensations in time only, cannot give rise to any perception of motion, either on the part of the finger, or in the shape of an elongation of the felt extension itself. They are simply feelings of change in the original sensation of resistance. What we have in this second experience, therefore, is not the full perception of motion or elongation of outline, but their ultimate rudiments only, namely, the rudiments of direction; inasmuch as two qualities are distinguished simultaneously in one sensation, the sharp definite side, and the faint indefinite side, of the original surface-perception. Still there is no perception of surface as an object touched, distinct from the perception.

3. Next let the finger-tip be moved over the whole outside surface of the box. What is now felt is a greater differentiation of the perception, both in its content and its form, whenever I come to an outside edge or corner. There is still no perception of change in spatial length or elongation. When my finger-tip moves along the length of the box, there is continuance of the differentiated outline

as in (2), but it is perceived as continuance in time only. When I come to and traverse an outside edge or corner, this perception is again differentiated. There is extension felt on the far side of the sharp outline, the side towards which the finger moves; but the extension vanishes on the opposite side; so that two sides of the box are not felt simultaneously; nothing but changes in the content and outline of the original perception. Nor is there any essential difference, if we suppose two sides of the box to be felt simultaneously by the finger-tip on the edge between them; the only change would be, that the feeling which we called a sharp outline would shift its position to the middle, between two indefinite outlines given by the two sides supposed to be felt simultaneously, a differentiation within the perception itself. Neither motion of the finger-tip, nor elongation of the surface-perception, is brought into consciousness. There are greater complexity and greater variation in the original surface-perception, and that is all. Also, here again there is no surface perceived, distinct from the perception itself.

4. If next I carry my finger-tip round the inside of the box, the perceptions are significantly increased. At an inside edge, two sides are clearly felt simultaneously, parted by a line of non-sensation; and at an inside corner three sides are felt, parted by a point of non-sensation. In other words the rudiments of the perceptions of content, outline, and direction, have become far more complex. Still there is nothing to show, that different portions of a statical extension are perceived successively; it may be, for aught we yet perceive, one portion

of extension variously filled, throbbing, as it were, with varying content, now expanding and now shrinking, definite and sharp, now here, now there, at one moment continuous, at another discrete, which is before us during the whole experience. The extension has parts beyond parts *ad intra;* but there is nothing as yet to show that there are parts of extension beyond it, except the as yet uninterpreted and expectant fact, that it is felt now larger and now smaller, according as what we afterwards call a larger or smaller portion of the sensitive surface of our finger receives the impression. Still less is there any perception of an external surface felt.

5. But a far greater addition to our knowledge is made by the next step in our experience, namely, when we feel the box, inside or out, with the whole hand. In this experience it is, that the perception of an elongated portion of extension first meets us. Let the box be turned topsy-turvy, and the hand be placed with the finger-tips resting on what is now its nearest upper edge, and then be moved forwards till the whole hand, fingers and palm, lies flat on its upper surface. The extension felt at first by the finger-tips will then be felt as growing into the extension felt by the whole hand. The small extension with which we begin is then felt as continuous with the large extension with which we end, spatially as well as in time. There are parts of space beyond the parts with which we begin; for all the parts of the large extension, felt by the whole hand, are now felt simultaneously. They are no longer felt only as a change of an extension-content in time; they are felt also as an addition to

the original extension itself. There is a perceived identity, or more strictly coalescence, between the successively felt parts and the simultaneously felt whole. This is an instance of the first and most rudimentary perception of motion as given by touch. It is identical with the perception of the growing, expansion, or elongation, of the extension in a surface-perception. Still there is no knowledge of surface distinct from the surface-perception.

6. This experience may be in some sort continued by supposing the whole surface of the body to be the sentient surface employed, as when we take a bath of cold air or water. The difference is, that here we are comparatively passive to the sensations, we do not institute the experiment as when we press our hand on a resisting surface. The motions which we feel are the changes in size and outline of the surface-perceptions varying over the surface of the body, like flaws of wind over the surface of a pool. Still, however varied these motions and the concomitant sensations are, they do not inform us that our body is bounded by a surface, still less that it is a solid of three dimensions. No perception of a surface as distinct from a surface-perception is given by them.

7. The last experience of the series, to which we now come, tells us more of the nature of space in three dimensions than all the former ones put together. This it does by completing the notion of direction, the rudiments of which have already been given. We have supposed ourselves to touch certain complex resisting surfaces all over, exploring first their outside, then their inside angles, and then to receive touch-sensations over the

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whole surface of the sentient body. It remains to suppose, that we touch the surface of a solid body all round simultaneously, which we do when we grasp it with the hand so as to let the fingers close upon it, and return to meet the palm of the hand that grasps it. This experience combines sensations of elongated extension and motion into groups recurrent in space (as well as in time), by completing the rudimentary notion of direction, which we obtain by simple change in the outline of a surface-perception as in (5). Let us see how this is.

The full notion of direction involves the notion of a point towards which, as well as one from which, motion takes place. But these points must be perceived simultaneously, if they are to be perceived as points in one and the same statical extension; since to lose one of them out of perception, in the moment of coming to perception of the other, would be to perceive them successively only, that is, in different moments of time, and not also in different positions of space. Both perceptions must be combined in perceiving motion in a certain direction, namely, the statical extension of parts beyond parts, and the successive perception of those statical parts. Now since tactual sensation gives no knowledge of extension beyond the surface with which the sentient organ is actually in contact, it is plain that there is but one way in which the two termini, from which and to which we move, can be simultaneously perceived; and this is, when they are felt as immediately contiguous to each other on their hitherto free or unoccupied sides. The immediate contiguity of

these two impressions is the essential circumstance which must be perceived, if we are to have the full perception of direction from touch.

These conditions are fulfilled when we grasp a small solid object, say the handle of a paper-knife, with the fingers of our hand closing round it and touching the palm. The hand then receives what I have called a sensation of motion, or elongated extension, from the object grasped, and in closing round it the finger-tips receive from the palm an impression contiguous to one end of that felt extension, and the palm and the finger-tips receive from each other an impression contiguous to the other end of the same extension. The touch of palm and fingers, both of which also touch the object, binds together what would otherwise be the free ends of a series of extended impressions, makes the series return into itself, and forms it into a group recurrent, not in time only, but also in space. This perception once attained, then differences of direction are given by the different sensations, whether tactual or muscular, which occupy the elongation intermediate, on one side, between the points of departure and arrival, which points on the other side are contiguous.

This experience may be varied by supposing the object to be felt on all its sides at once, like a boy's playing marble ; or by supposing that one of the hands is the object grasped by the other hand. This latter case is highly complex. But still we derive from it no perception of a surface felt as distinct from a surface-perception. We have two groups of recurrent surface-perceptions, concomitantly varying ; but we cannot know

that the groups form surfaces enclosing spaces sensitive to each other, and objects to each other. The hand grasped (to take its sensations first) receives groups of extended perceptions, recurrent on themselves, and connected in a definite order with each other. It is a more complex case of the air or water bath in (6) ; complicated by the recurrent grouping of the perceptions. But it gives no more knowledge of surfaces, as distinguished from surface-perceptions, than that former experience did. It contains no notice distinguishing the hand grasped from its sensations, consequently no knowledge that the hand is a solid body. As yet it is known only as a group of sensations.

Similarly the hand grasping receives groups of recurrent impressions of resistance, which it cannot overcome by effort, and which are also connected in a definite order with each other. These are the rudiments of our perception of solid bodies occupying space in three dimensions, but they are not that perception as yet. They are nothing but impressions of resistance recurring in definite order so long as our hand continues to feel the object grasped, or our hands to feel each other. But these objects are not as yet distinguished from the impressions which they either receive or give. The experience conveys no knowledge that either the hand grasping or the hand grasped is a solid body, or that there are two hands or two objects concerned at all. It contains no perception of a surface moved over, or of an organ moving over it. True, the perceptions are given by surfaces and by movements of organs, but the

knowledge that this is so is the knowledge of others, who like ourselves may be watching the experiment, and is not yet acquired by the supposed experimenter. His perceptions are, as yet, only perceptions of tactual, muscular, and effort sensations, extended and recurrently grouped in spatial extension; but the hand or other organ by which he feels these sensations is not yet known to him as a surface in contact with other surfaces. An extended sensation is not the same thing as an independent surface felt as extended; a recurrently grouped series of extended sensations of resistance is not the same thing as a resisting surface enclosing a portion of three-dimensional space, distinct from the rest of three-dimensional space beyond it. The knowledge of space and solid bodies which is acquired by these experiences, so far as they have been hitherto described, is an inchoate knowledge only, expectant of completion by further experience.

§ 3. It would be very difficult, but at the same time quite irrelevant, to attempt to determine how far a being who should be endowed solely with reasoning powers, in addition to the sense of touch with its practically inseparable sensations, I mean those of resistance and effort in movement and adjustment of organs, might go towards constructing an idea of the world of space and solid bodies contained and moving therein, if he had to build solely upon repeated experiences of the kind just described, and without the power of receiving instruction from any other source. It would be irrelevant, because it would introduce an hypothetical and psychological conception of the Subject

of consciousness into the purely analytical examination of the process-contents of consciousness in their sequences and co-existences.

The difficulty would arise from our having no guide to the amount of intellectual or reasoning power, which such a being might fairly be supposed to possess; for the greater the power, the more complete and accurate would be the notion formed. Yet it would almost seem that, however great his powers of memory, association, and reasoning might be, short of actual divination, the absence of any sense but that of touch, with its practically inseparable sensations, would impose a limit impossible for him to transcend. The notion of resisting solids bounded by surfaces, as distinguished from, or as the objects of, groups of extended and spatially recurrent perceptions, would probably not be accessible to him. These perceptions alone would be the content, so to speak, of his whole consciousness, and of these accordingly his whole world would appear to consist. His conscious life would be an intermittent series of groups of extended, or extended and recurrent, tactual and muscular sensations. The laws regulating the conformation of these groups, and their succession in his consciousness, would be the object of his science; and hypotheses as to the nature of the whole existence, of which the groups were a part, would be the constructive branch of his philosophy. For, if the notion of surfaces enclosing spaces separate, or separable, from the perception of them were absent, the notion of space itself, extending in three dimensions beyond any enclosed portion of itself, would be absent

also; or, if reached at all, would be so in the character of an imagination, adopted by way of hypothesis. Apart from this hypothesis, a group once vanished from presentative consciousness might recur, it is true, as a memory; but it would not be thought of as located anywhere, so as to confirm any expectation there might be of its coming into presentation again. Distance in space between groups which had always been felt separately would be, for such a being, when once they had vanished from his touch, an idea unknown. *Out of reach out of existence*, except as recalled in memory or expected as a future experience, would be for him a rule absolute, and his idea of himself, supposing him (*per impossibile*) to have such an idea, would neither include the notion of body, nor be in any way distinguishable from that of the world he lived in.

The world of such a being would be to him something extremely imperfect, fragmentary, and puzzling, supposing him endowed with the capacity for wondering, which is the foundation of intelligence. Of this unsolved enigma he would then seek an explanation, with energies proportioned to the degree of his intelligence. But of course the existence of such a being is a fiction and an artifice. Man at least, so far as we know, has never gone through a stage at which one sense only was exercised, in isolation not only from other senses but also from the feelings accompanying instinctive actions, appetites, desires and emotions, and at the same time exercised in combination with a high degree of intelligence. Probably his intelligence has developed to its present state, such as it is,—

§ 3. The tactual World.

for be it noted, that our actual state in presence of the Universe is closely analogous to this in point of kind, though very different in point of complexity,—because he was endowed with several senses, the different notices of which supplemented each other. Especially is this the case with the two senses of sight and touch, the sensations of which, as we know by immediate experience, are received together; an experience entirely independent of any knowledge of the fact that they belong to a single Subject, of which knowledge it is, on the contrary, one of the main and indispensable foundations. Separately, the notices of these two senses are fragmentary, incomplete, enigmatical; together, they combine into a consistent whole. It is by an artifice that we have separated them; they are expectant of re-union.

§ 4. Combination of visual and tactual perceptions.

§ 4. Let us suppose, then, in the next place, that I grasp one hand with the other hand, *while seeing them.* Now for the first time the enigma of groups of extended sensations recurrent in space is explained. Simultaneously with the groups of touch and its inseparable sensations, I see portions of the visual expanse detached from the rest and moving. Simultaneously with the changes in the sensations of the tactual group, I see minutely corresponding changes in the visual group. The two groups are experienced simultaneously; the identity of their duration mediates their combination; and the extension common to both is perceived as made up of resisting and coloured surfaces in three-dimensional space, and thereby also as a whole, distinguishable from the groups of tactual and visual sensations

taken severally, which are its component elements or parts.

The identity of duration mediates the combination, but it is not alone a sufficient condition of it. For instance, I do not combine into one and the same object a sight with a sound, or a sound with an odour, merely because their duration in consciousness may happen to be identical. Identity of duration, therefore, though a necessary, is not alone a sufficient condition of the combination of visual with tactual extension. The completing condition lies in extension itself. One and the same extension is occupied in common by the two groups of sensation, visual and tactual. The identity of the extension, in identity of time, compels us to perceive the two groups of sensation as forming together a single complex object.

Colour is given by the visual group, resistance by the tactual, extension by both, and this extension is numerically one. True, each group gives extension differently, gives, so to speak, a different feature of it. Still they do not give different kinds of extension, but different modes, extension differently perceived. If they did not occupy one extension in common, they would give each a specifically different kind or variety of extension. But prior to experiences such as we are now analysing, we have no general notion or conception of extension, to which to refer them as different species to a common genus. Whether there is a common genus to which they so belong is, in fact, the very question which these experiences virtually decide. If the two groups of sensations combine as perceptual parts or modes of a single complex

perceptual whole, that is, if they occupy one and the same extension in common, then they cannot give rise to specifically different kinds of extension. For the differences must plainly then be due, not to the extension-element of the total experience, but to the sensation-element only. Let us see then how the facts stand.

Colour, I repeat, is given by the visual group, resistance by the tactual, extension by both. But the extension-element peculiar to each group is just that element in it which is incomplete and enigmatical, expectant of some further knowledge. In sight, the expanse of colour is undifferentiated into the directions of surface and depth; it is surface at least and possibly much more. In touch, the extension has depth as well as surface, in the recurrence of the extended sensations of resistance to an identical point; but it has not surface and depth distinguished from each other. In touch there is nothing incompatible with the distinction of depth from surface; in sight nothing incompatible with depth. There is simply, in each case, a want which the other can supply. Only let the two senses be combined by simultaneity of exercise, and the want is supplied, and a coalition of the notices of both senses takes place. When I grasp and feel one hand with the other, looking at them while doing so, the recurrence of the felt resistances is supplemented, and to some extent explained, by the sight of changes in the continuous surfaces of the hands, as I turn them round and round. Also at the same time the visual expanse of colours is differentiated into surface and depth, by the visual sensations com-

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posing the seen hands coalescing with groups of recurrent tactual sensations, and so being perceived both as surfaces enclosing spaces, and also as detached from, and moving independently of, the rest of the expanse of colour, which remains as a comparatively undifferentiated background. Consequently I locate the sensations of resistance in the seen hands; I locate the visual sensations in the felt hands; I have before me visible and tangible objects occupying the same space; and the two extensions, perceived respectively by sight and by touch, coalesce into the single complex perception of a solid body occupying part of, and surrounded by, space in three dimensions, surface and depth being now contradistinguished as well as combined.

§ 5. The term *Object*.

§ 5. Before proceeding with the analysis, I will advert to a point in the experience already analysed, which marks a step in advance towards the attainment of the full meaning of the term *object*, a term which it is one of the main purposes of philosophy to understand rightly. The sense of sight supplies in a certain way an object to the sense of touch, in supplying it with the perception of surface as a whole; I mean of an expanse extending beyond the portion of space at any time actually touched; that is, it supplies, as a suggested and possible object of touch, something not contained in the tactual group of perceptions at all, but which is combined with them by the conjoint exercise of another sense. Similarly touch supplies an object to sight, in supplying the perception of resistance, which is not contained in the visual group of perceptions, but combined

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with them (though not in all cases) by the conjoint exercise of touch. The sensations peculiar to each sense become thus the object of the other sense; and the objects of each are combined into objects common to both. This is a step in advance towards a fuller meaning than we have already noted, in the term *object.* When we say, in experiences later or more complex than the one now supposed, I mean after we have distinguished our own perceptive processes from material objects perceived, when in such later experiences we say that we see an object, what we mean is, that we see something which is also possibly or actually tangible; when we say we touch an object, we mean that we touch something which is also possibly or actually visible. Objects of either sense are thought of as both tangible and visible; and each sense verifies the other by giving, not the sensations of the other sense, but something which, being equally sensible, is a constant concomitant of them, varying with their variations.

Now it is important to note, that the term *object* means, when so used, something *not* included in the sensations of the sense which is said to perceive it, but thought of as combined with those sensations; that is, combined with them in Nature, and known to be combined with them by verified association. But is that the way in which we have hitherto used the term *object?* Not precisely; it is a slight but definite modification of it. In previous Chapters of the present work, until we came to examine the combination of sight with touch, *object* has always meant an object, not for a special sense, but for reflective perception, by

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which alone all perceptions, whether presentations or representations, are objectified. It is the perceptions, the sensations, the representations themselves, whether belonging to this sense or to that, which are objects of reflection; the fact *that* they are perceived by reflection is their objectivity; and there is no reference to any other sense to verify or support them, than that to which they themselves belong. The perceived content or whatness is the object; and its being perceived by reflection is its objectivity.

But in the present case, perception of a visible and tangible object by the combined perceptions of sight and touch, we have for the first time a peculiar duplicity in the object. Partly it is immediately perceived, and partly it is surmised as perceivable. But even as merely surmised, it is surmised as real, and as equally real with the immediate perceptions of it. And one part being surmised, the connection of that part with the immediate perceptions is surmised also; that is to say, the object taken as an individual whole is the object of surmise, and yet is taken as equally real with the part immediately perceived, which, being perception, is objectified by reflection simply.

§ 6. *Objective Thoughts* and *Objects thought of.*

§ 6. We have here the origin of a distinction which plays a most important part in philosophy, I mean that between *objective thoughts* and the *objects thought of* by them; the latter being the objects of what, in a previous work, I have called *direct* as opposed to reflective perception. But the term *direct* is certainly ill-chosen. It is misleading because, in contrast with *reflective*, it suggests a priority on the part of direct perception which is

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the opposite of the truth, and which I expressly combatted in the work referred to. *Face to face* perception will perhaps be a better term to use for it, that is to say, when we shall have come, in the future course of our analysis, to see how the idea of a separation between perception and its objects arises. Spatial extension is the form of perception which lies at the basis of the double distinction now in question. Objects in presence of percipients, and objects in presence of each other, alike pre-suppose existence in space. Yet both objects thought of and objects of face to face perception are equally objects of reflection with objective thoughts. They do not cease to be objective thoughts because they have become objects thought of. Without reflection there is not even surmise. But an object thought of, so far as it is surmised only, is plainly an object of which we have no immediate and positive knowledge. To turn surmise into certainty, by means of hypothesis, inference, and verified prediction, in respect of objects thought of, is the task of positive science. Those objects are its special field. But none the less they are objects of reflection, both while they are surmised only, and when they have become objects of positive knowledge. An object thought of does not cease to be an object of reflection, because it has become an object of science. For philosophy, where the point of view is subjective, all *objects thought of* have *objective thoughts* as their *prius* in order of knowledge. It is at the end of a perceiving that its content is perceived as an object. If we want to know *what* an object *is*, we must ask what it is *perceived as*. At the same time

it is evident, and indeed involved in this self-same philosophical view, that all objects thought of, except simple and ultimate data of perception, being taken as realities which are also objects of surmise, contain or may contain much more than, and much that is very different from, the objective thoughts which are, as it were, the handle by which we apprehend and bring them within the range of our knowledge.

The two different senses, then, in which the term *object* is used, are clearly quite compatible, so soon as we see how they differ and why, and consequently are no longer in danger of confusing them. I mention this point now, where the new sense of the term *object* is first disclosed, but refrain from enlarging upon it. I reserve for its proper place the use and application of the distinction, as a solvent of what seem great puzzles to many minds, in exploring the 'holy jungle' of metaphysic. And particularly it must be remembered, that the two distinctions now pointed out are not drawn or perceived by the percipient, when considered as we have now been considering him, namely, as busied solely with visual and tactual percepts. He does not recognise visual perceptions as the object of tactual, or tactual of visual; neither does he draw the further distinction, which is partly based upon it, between objects thought of and objective thoughts, which are the perceptions or ideas of them. It is we who, in our analysis of his experience, discern those distinctions to be involved in it. He sees the facts in which they are involved as different, without recognising in what the difference consists. To him visual and tactual

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perceptions coalesee into solid material objects, and are perceived, not as perceptions, but simply as realities uneontrasted with perception.

Hitherto, that is to say, in the eourse of experience supposed, and so far as its examination has gone, there has occurred no severance between perception and things perceived; there has been no recognition of what pereeption, sensation, consciousness, experienee, are, I mean as different from the objeets of them, in any other way than as a prior perception is objeetive to a later one. The eomplex objects formed by the eombination of visual and tactual perceptions, as, *e.g.*, our own hands seen and moving in felt eontact with each other (although we as observers have noted, that tactual sensations are the objeet of visual, and visual of taetual), are still perceived simply as parts of the single complex time-stream of eonsciousness, though broadened out, to use the old similitude, into a lake, owing to the eomponent sensations oceupying spaee in three dimensions. There is as yet no perception either of vision or of toueh being a perceiving funetion, distinct from the visual or tactual pereeptions whieh are its produet; still less is there a perception of an Ego's pereeption of an Ego's hands, or of any objects unsevered from the stream of pereeption itself. Tangible objects are still, at this supposed juncture, unsevered parts of a stream of eonsciousness, whieh is as yet undistinguished into a tangible and an intangible, or rather into a material and an immaterial portion. The simultaneity of the pereeptions of the two kinds, and the sameness of the space-portions which they occupy, involve the sameness of the

groups which they form. And it is undeniable, that, as a matter of fact, they do occur together in this way, independently of any theories which we may form concerning the real conditions of their doing so, theories which necessarily pre-suppose an experience of the fact to be accounted for.

Nevertheless a first and all-important step has been taken in the direction of severance, by the distinct perception of objects formed, by the combined exercise of sight and touch, out of the perceptions of those senses. The root of all the subsequently attained distinctions, which have been enumerated in the foregoing paragraph, lies in this perception. In its lowest terms, or earliest conceivable shape, of which I take the experience now analysed to be an instance,—though of course we must not suppose that it occurs historically in the same isolation in which we have placed it artificially for the purpose of analysis,—it consists of groups of perceptions unsevered from the stream of perception of which it is a part, notwithstanding that the perceptions composing any of its complex groups hang together by association, and move together as changing but still constantly combined units. Their movements in point of place and configuration of parts are still perceived as being also changes in the time-stream of consciousness, though they are changes in space as well as in time. The sensations or perceptions composing the groups, whether of colour, hardness, shape, or motion, are perceived as belonging to the groups, not to the Subject's perceptions by which he perceives the groups. We refer, as already stated, colour sensations, hardness sensations, and so on,

§ 6. *Objective Thoughts and Objects thought of.*

to the same portion of space, as qualities belonging to it; and this it is which enables their formation into groups at all. The idea, that sensible qualities are inherent in physically material objects, has thus deeper and earlier roots in experience, than the opposite idea, that those qualities are originally sensations of 'ours,' which 'we' transfer to physical matter by imagination or mistake. Till groups of space perceptions have been formed in consciousness, we can have no experience of ourselves as percipients, nor even of perception at all, as different from physically material percepts. Perception in time alone, though the simplest and most essential form of experience, has yet to wait for recognition of what it is, till matter also has been perceived.

CHAPTER VI.

THE EXTERNAL WORLD.

§ 1. The Perception of Bodies in Space.

§ 1. It is by the combined exercise of sight and touch, including their practically inseparable sensations, that we first obtain, and afterwards examine and arrange, our perception of an external world. Until we have exercised sight and touch together, we have no such perception; *externality* has no meaning for us. Externality is not synonymous with extension, or with space. Neither extension nor space is external to time, or to consciousness considered as a succession of conscious states in time. Both, on the contrary, are in time and in consciousness, being distinct modes of conscious perception. There is, therefore, nothing to which extension or space can be perceived as external. But if extension, and still more if space, is once given, then externality acquires a meaning. It is the relation between parts of an extension, or of a space, perceived as being one beyond another, statically and simultaneously, and not merely successively. Thus it is that our external world arises along with our perception of our own bodies as occupying space; and means the rest of space in relation to the portion which our bodies occupy.

People often speak of the body as external to

the soul. But this cannot be done without implying, either that the soul is extended, or that it is a mathematical point in extension. If agency is also attributed to it, then, since the agency of a mathematical point is an absurdity, the former alternative must be adopted, and thereby the first step taken towards materialising it. Again, we often hear the question—'Do you mean, by the world without us, things outside the body, or things out of consciousness?'—a question which is often most pertinent and forcible in argument. It brings to light the ambiguity of the word *without*. Strictly, *out of consciousness* means, Not making part of the time-stream of consciousness. And when used in this sense, it is legitimately used only with the reservation (at least) of the present moment of the time-stream which contains the question. For it is plain, that to put the question is itself to bring the thing questioned into the time-stream. This reservation, therefore, must always be understood. But *out of consciousness* is often used as equivalent to outside the soul, mind, self, or Ego; which usage involves quite a different idea. And so far as our examination has gone at present, we have not met with any experience of a soul, mind, self, or Ego, or of anything which can be regarded as a Subject of the consciousness or the experiences which have been examined. The first appearance of anything answering to any one of these terms has still to be looked for.

We have, however, arrived at the perception of what we afterwards call our body. According to present results, our body is perceived as a certain visible and tangible figure, changeable within

certain limits as to its configuration, and movable within certain limits in place, or in relation to the external world; the constant central object in, and portion of, an indefinitely bounded space, which we imagine usually as a sphere. Distance and direction of other objects are measured primarily by reference to this central portion of space. Objects which we can see but cannot touch recede, in perception, into the distance; the length of which distance is measured primarily by the time which we imagine our bodies would require to reach and touch the object seen. In the case of the sky and heavenly bodies, the formation of our modern judgment of their relative distance, and of their background of space, or, as it first appears, of undifferentiated colour, is a long chapter in the history of astronomy.

Observe what it is which happens in thus constructing our notion of the external world. A colour or group of colours is supposed, if what has been said above is correct, to be also tangible; that is, it is referred to something which is a common object of sight and touch. But in putting out our hand, or moving in its direction, so as to touch it, we find that we do not come into contact with it. Do we on that account take back our supposition that it is tangible? By no means. And even if we should, still, in moving towards a comparatively distant seen object, we should come into actual contact with many nearer objects, including successive portions of the ground beneath our feet, which we should have also seen, prior to coming into contact with them. And, supposing us to follow this clue, we should also find that,

though the length of time required to move up to and touch such comparatively distant objects varied with what we afterwards call their distance from us, yet continuing the movement brought us at last into contact; and therefore we argue informally, or represent to ourselves, that, if we could only continue the movement long enough, we should finally come into contact with even the most distant of the objects seen. In short we ascribe the actual non-tangibility of seen objects which are out of our reach, not to their being intangible, but to their distance from the constant central object of our then perceptual world, which is actually both visible and tangible, namely, our own body. It is thus that the perception of distance between real bodies is first acquired.

But see what sort of a world it is which we stand in now, at this point of our analysis, which to our supposed percipient is a construction. The unbroken visual expanse with which we began is now broken up; a background of colour has receded into an indefinite distance from us; and round us on all sides, in front of that background, and some in front of others, detached groups of colour move or stand before our eyes; groups which we feel in some cases, and infer in others, to be tangible also, that is, to be resisting solid bodies. In short our external world consists, at this artificially obtained point of its construction in thought, of solid bodies moving or stationary in empty space, itself intangible and invisible;—in fact a *mere distance*, as it is sometimes called, between visible and tangible bodies, only that it is also, what is not always noticed by those who call it so, in order if

possible to represent it as *purum nihil*, distance in some direction or other of three-dimensional space; which is a construction of thought, to which the material, as well as the formal element of consciousness has contributed. But we have not yet found out, I mean at the point now supposed to be reached by our analysis, that the coloured background of all is intangible in its own nature, and that the colour which we refer to it has in reality no background but space.

Turn next to the other branch of our perceptions, I mean, where objects are touched without being actually seen, which is the case with wind and air. Do we take back our supposition of their visibility, because they are not actually seen? Certainly not; and why? Because that supposition is necessary to their being in any way understood; they are unintelligible without it; they would fall back, without it, into the originally enigmatical condition of tactual sensations apart from the visual perception of surface, which would be an entirely untenable supposition. For it must be noted, that what we afterwards call their observable effects on other objects, trees, waves, rain, and so on, which vary with their felt effects on our own bodies, that is, with the sensations themselves, forbid the notion that they are sensations arising in consciousness unconnected with sensations of other kinds, and without what we afterwards call external agency. Wind and air, therefore, must be conceived as bodies occupying space in three dimensions, that is, as in some way bounded by surfaces, which implies their visibility, or else they must remain unintelligible. The logic (as it may

perhaps be called) of sight and touch combined, and subject to the Law of Parcimony, is the only logic (in the sense of a previously acquired system of ideas) applicable to them.

The readiest way of construing them to thought is to conceive them as made up of minute solid particles, widely spaced in comparison to their bulk, whereby we account at once for their yielding free passage to our bodies, and for their escaping our visual sensibility. They are tangible but not actually visible, their non-visibility being due, not to the invisibility *a parte rei* of the particles composing them, but to their smallness relatively to our sensibility, and to their relatively wide dispersion in space. It is a parallel case to that of the heavenly bodies, whose actual non-tangibility is interpreted as due to their distance, and not to the intangibility of their nature.

Again, then, let us take stock of our ideal construction of an external world. We have examined the two cases of objects seen but not touched, and objects touched but not seen ; and both have led us to the same conception. This was to be expected, inasmuch as both spring from one common root, the combined exercise of sight and touch, involving the association of ideas, and giving us our first foothold in the task of combining disparate sensations into unities of knowledge. The common conception to which they have brought us is the conception of the external world as composed of solid bodies, moving or at rest, having various figures and magnitudes, variously distributed, and separated by empty spaces from each other. But by empty space is

meant no more than space unoccupied by bodies actually seen or actually touched. It is possible that space may contain bodies, non-tangible and non-visible to us, which nevertheless we must think of, if we think of them at all, as in themselves both visible and tangible. The non-visibility of air and wind suggests the thought, but does not answer the question, whether any such bodies exist, which is one branch of the well-known question between the *plenum* and the *vacuum*. At the same time the questioning conception of interstitial space wholly void of matter is evidently attained.

This conception of the external world is a new and distinct step in that ideal construction which we call our common-sense knowledge of it. We began (in the character of a supposed percipient) with extension as an inseparable element (1) in sight, (2) in touch. We then combined the two senses, and their two modes of extension, and obtained a world of space in three dimensions. Next we examined cases of sight where there was no touch, and touch where there was no sight, and we found that our objects, in both cases alike, were both visible and tangible objects, solid bodies in three dimensions. Lastly we have these objects distinguished from the space in which they stand or move. The inseparable element of extension has become, or rather has given rise to, a distinct feature of the external world, separable, though only by abstraction, from its former content of sensation, and conceived as a void receptacle for solid bodies moving or stationary within it; and these solid bodies, though not separable even

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by abstraction, from the space which they themselves at any given time occupy, are yet a correspondingly distinct feature of the external world, inasmuch as they are empirically separable from the space which, at any particular time, surrounds them as their receptacle. In other words, we have in consciousness a Material World, a world of Matter in Space.

Not that extension has ceased to be an inseparable element of perception; far from it. Its inseparability from the perceptions of sight and touch is the very condition of the inseparability, in thought, of the space occupied by any solid body, or portion of matter, from the matter or solid body which occupies it, and also of the inseparability (except by abstraction) of geometrical space, thought of as a common receptacle of solid bodies or matter, from the congeries of bodies, of which it is the receptacle. And not only is the first inseparability the condition of the two latter, but it is the condition of the two conceptions, of solid bodies or matter, and of geometrical space, being formed in the first instance, and afterwards held in perpetuity as true notions. I call them conceptions for the sake of brevity. Strictly speaking they are complex perceptions, to the formation of which conception has contributed. This distinction has been already insisted on.

§ 2. Its psychological history distinct from its metaphysical analysis.

§ 2. Observe, I have used the word *condition*. The inseparability of extension from the sensations of sight and touch is a condition of the two last named conceptions, space and matter, in two different senses. First it is their *conditio essendi*, an element in their analysis, always present, always

capable of being pointed out, notwithstanding that we habitually overlook and forget it, owing to the frequent use of the conceptions of space and matter for other purposes than merely to discover their nature and constitution as conceptions. Secondly, it is what may be called a positive antecedent condition, not of their coming into consciousness (which would make it a *real* condition), but of their being the cognitions which they are, when they do come. That is to say, the conceptions, or rather complex perceptions, of space and solid matter, as pieces of knowledge, have grown up out of prior perceptions, namely, visual extension and tactual extension; the perceptions of each kind having, as belonging to different senses, a complete or empirical existence, independent of those of the other. From their combination, that is (since the things combined are empirically separable), by association, the conceptions of space and matter are generated; and the visual and tactual perceptions, out of which they are generated, remain perceivable in them, to be there perceived when (so called) introspective attention is properly directed upon them. Thus the conceptions of space and matter have really a history behind them in consciousness, consisting of the combination, by association, of visual and tactual perceptions, that is, of the combination of distinct empirical states of consciousness. There has been a certain course taken by the process-content of consciousness which has issued in their formation, a course consisting of the association of separable states of consciousness purposively attended to, and

quite different from any process going on below the threshold of consciousness, upon which it may itself have been conditioned. And since this early period in the history of an individual's experience has been forgotten by him long before he begins to philosophise, he can then reconstruct its stages, or even become aware of their having existed, only by inference founded on analysis of his experience as it exists from that time onwards, supplemented by psychological reasoning founded on observation of the corresponding period in the life of other individuals.

The visual and tactual perceptions themselves, on the other hand, have no such history in consciousness behind them. They have a history, true; but it is not a history in the consciousness of the percipient. Their elements of analysis, feeling and extension, are inseparable from each other originally, that is, from the very dawn of these perceptions in consciousness. Looked at as pieces of knowledge, the inseparability of their elements is an ultimate fact, not conditioned on any prior knowledge. And though it is true that they also have a history behind them, namely, a psychological, physiological, and physical history, still this history, that is, the play of the conditions which compose it, does not explain, does not show the origin of, the inseparable combination of feeling with extension, but assumes it in assuming the conditions alleged. It obviously does so, if it includes a material organism and a material environment among those conditions, since these are objects which cannot be themselves understood, have no intelligible existence, and therefore cannot be

used in accounting for anything whatever, unless feeling and extension are inseparable in sight and touch,—which is the very thing which the enquiry supposes to need accounting for. If, however, an immaterial agent is held to be the explanatory condition of the inseparability in question, then it remains to show that an immaterial agent is an intelligible reality; intelligible, I mean, in contradistinction from material agents with their physical agencies; a tacit recourse to which would be equivalent to making the same assumption as before, only at another stage, the empty word *immateriality* having been interposed, seeing that the conception of matter is the *prius* of that of the immaterial, in order of knowledge.

There is, then, a history in consciousness behind the notions of space and matter, leading up to those notions; a history different from their psychological, physiological, and physical history, though accompanying it from the dawn of spatial perceptions onwards, and conditioned upon it; and this history in consciousness, which is the conditionate of its psychological history, from its earliest stages to its latest, from its simplest beginnings to its largest and most complex conceptions, is, in respect of its nature as a Knowing, the object of metaphysic, or metaphysical analysis. For metaphysic is concerned with the content of our consciousness, and with the co-existences and sequences of its parts, as they combine, with mutual modifications, or by exclusion of some and admission of others, to form a consistent system of ideas, or a systematic knowledge of the universe of things. And the history of our knowledge in

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this sense is as much the object of metaphysical analysis, as any portion of it is, when taken in the character of a single idea, simple or complex. This is only saying in other terms, that sequences of any length, or any degree of complexity, are with equal legitimacy objects of metaphysical analysis, as are the simple process-contents from which they issue, and the complex process-contents in which they result. It is in this sense, therefore, that the history of consciousness is the object-matter of metaphysic.

On the other hand, metaphysical analysis is not concerned with the historical sequence in which the several process-contents of consciousness, whether simple or complex, have occurred, or with the number of times for which they must severally have been repeated, during the formation of that consistent system of knowledge; nor with the laws to which that historical sequence is subject. It is not concerned, for instance, to enquire how many times visual and tactual sensations must have been simultaneously perceived, in order to produce by association the complex perception of a material object in three-dimensional space, or still farther the idea that such objects are indissoluble existents. This could only be done by discovering the laws and order of the real conditioning of consciousness in individual Subjects, taken as already known to exist, and also taken in connection with, and partial dependence upon, their environment, which again must also be assumed as a reality already known. Any enquiry of this kind would be psychological not metaphysical, because it is not directed to our experience or knowledge of exist-

ence in its entirety, but proceeds by first assuming real conditions of consciousness to exist, and then connecting particular process-contents of consciousness with them. And for the validity of its assumption of real conditions, whether named Subject or Objects, it is dependent on metaphysical analysis, since this alone (from resting on experience without assumptions) can show whether the conception of *real conditions* has or has not a real meaning, and what that meaning is. That consciousness is in any way conditioned, is a fact which must be learnt from the analysis of consciousness, taken, of course, both in its sequences and in its co-existences. In other words, some analysis of the history of consciousness as a knowing must precede any generalised knowledge of the order in which its process-contents are conditioned to occur. Thus the very same facts of consciousness are or may be comprised in both enquiries, though differently dealt with by each. It is an analysis of them in sequences of combinations, as well as in single combinations, but always in respect only of their nature as a knowing, which I have now been attempting, in the case of our perception of the external world.

The process which results in the composite and yet abstract perceptions of space and matter has thus a double character, psychological and metaphysical. In the first, it is a real process producing into existence a series of process-contents of consciousness,—throwing them up, as it were, from below the threshold; in the second, it is that same series of process-contents of consciousness, treated, not in connection with the series of events (of

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whatever kind they may be) below the threshold, which produces it into existence, but in respect of the intelligible system into which its process-contents fall, that is, of their relations *inter se* as pieces of knowledge, in consequence of that very process of production, from which this mode of treating them purposely abstracts. In brief, metaphysic treats process-contents of consciousness as perceptions, and not as products, but of course without denying the fact or the laws of their production. In this way of treating them each perception is shown to contribute its quota to the result; that is, in the present instance, to the resulting complex perceptions of space and matter; and is thus at once a positive antecedent condition of those perceptions being the perceptions which they are, and an evidence of the character and value of the psychological process which it accompanies, and upon which its existence depends.

§ 3. The Conceptions involved in attaining it.— Four classes of Conditions.

§ 3. Let us then see, first what conceptions are really involved, and in the next place what the supposed percipient, whose experience we are analysing, may be held to know of this process in consciousness, by which he has arrived at the composite perceptions of space and matter. Something he must have gathered from it, though he cannot recall the steps of the process itself, because it has not only been a process in consciousness, but has contained a series of steps of reasoning, many of which have been doubly reflective, that is, taken after and with distinct perception of the existence of the states of consciousness compared. These must certainly have left a trace in his habits

of mind, though they have themselves faded from his memory; that is, supposing him to be a real agent, as in common-sense experience he appears to be. He must have formed some logical notions from the course of the process, besides the physical and mathematical notions which have been its result. Since reasoning, that is to say, purposive attention, comparison, and inference, has been involved, though without formulation, in the process, both sorts of notions must have been formed by it, side by side with each other. If it had been a process in which the percipient had been merely receptive, without consciously re-acting upon and dealing with the perceptions received, he would not necessarily have formed any notion of the process as such, or acquired from it any logical conceptions however rudimentary. But he has been throughout exercising attention, comparing, judging, combining, rejecting some notions and adopting others. All this must have left some trace, some result, in his consciousness, in addition to the results embodied in the conceptions of space, bodies, and a material world. In other words, he must have formed at least the rudiments of some logical conceptions of Method.

Let it be noted in the first place, that the whole process in consciousness, seen as we can now see it, reserving the question how far our experient sees it as we do, consists of two parts. First there is the perpetual influx or recurrence of the perceptions composing it, the series of experiences depending on the real psychological process. Secondly there is the modification of this series by acts of attention and comparison, also depending

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in some way or other on facts or occurrences in the same real process. The percipient is chiefly receptive in the one case, chiefly re-active in the other. The perceptions of the former class are pure data, or facts simply; those of the latter are facts or data being dealt with, or perceptions being modified by the percipient. The results of the modifications, their resulting perceptions, are conclusions which must be tested by comparison with pure facts, similar in this respect to those of which they are modifications. There is first reception of facts, then modification, then reception of new facts, and then modification of the previous modification. The process begins with pure fact and ends with modification; in the instance before us, it begins with extended visual and extended tactual perceptions, and ends with complex perceptions of space and matter. But in this process the pure facts hold a twofold relation to the successive modifications. As preceding a modification, a fact is what I have called a positive antecedent condition of the modification, or of our knowing the modification as we do know it; as following and testing one, it is a condition of our knowing it to be true or false, and is one of its conditions *cognoscendi* in the full sense, or of reasoned cognition. Facts in the former relation contribute to the original formation of knowledge; facts in the latter relation contribute to its correction and systematisation, in other words, to the formation of *Cognitions* in the strict sense of the term, as distinguished from mere thoughts or conceptions. But they are the same facts, in point of kind, which stand in both relations, are both antecedent conditions and

conditions *cognoscendi*; that is, have different functions according to the different place they occupy in the process, and the different relation they hold to other parts of it.

Consider in the next place, that both the beginning and the end of the process (the inseparability of extension from visual and tactual sensations at the beginning, and the resulting perceptions of space and matter at the end), as well as all the intermediate notions, are analysable into parts or elements, which constitute their *whatness*, quite apart from the facts or the reasonings which precede or follow them, that is, apart from their antecedent, which I will now call their *contributory* conditions, and from their conditions *cognoscendi*, which I will now call *logical*. The process itself also, from beginning to end, may be treated as a whole, and, as so treated, is analysable in the same way, that is, into elements which constitute its whatness; only that here the contributory and the logical conditions, which lead us so to analyse it, lie in subsequently acquired knowledge, beyond the limits of the whole field which is now under consideration.

We have thus a third class of conditions, distinct from the former two (contributory and logical), namely, the conditions *essendi* of any given whole; that is to say, parts or elements which constitute its *whatness;* and these I will now call *essential* conditions. But what is true of the two former classes is true also of this, that it is a difference in the function and place of its perceptions which constitutes it, and not any specific difference in their content. The same facts, in point of kind, may appear

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as conditions of all three classes, that is, as conditions either *contributory*, *essential*, or *logical*. The distinction between them is one of method, applicable to processes of consciousness, and distinguishing parts within them which have different functions in their character of a *knowing;* and all three alike are broadly distinguished from the real psychological process which they accompany, on which they depend for their existence, and which on that account falls under a fourth head, namely, that of *real* conditions, or conditions *existendi*.

§ 4. What the Percipient knows of these conceptions at the time.

§ 4. But again the same remark must be made as at the conclusion of the foregoing Chapter, which is this, that, though we here and now can make reflections like the preceding, on occasion of our supposed experient attaining the perceptions of space and matter, it does not follow that he could do so at the time; and thus the second question raised above still remains unanswered, that is, how far he could go towards making them, in consequence of that supposed experience. The distribution just sketched of the phenomena of consciousness under four classes of conditions, the last of which is broadly distinguished from the other three, is among the latest acquisitions of philosophy. If our supposed experient could have analysed the process by which his knowledge of a material world was originally acquired, during the time that it was going on, and his knowledge was being acquired, then his philosophical knowledge would have developed *pari passu* with his knowledge of an external world, and of his own body as one of its existent objects. Whereas we know, both from

the history of philosophy, and from its development in individuals, that philosophy is a return upon this knowledge, long after it has been acquired, in order to analyse its nature and trace the laws of its long forgotten growth.

What our supposed experient has acquired solely from the process of his first attaining the experience of an external material world consists of certain steps made towards the philosophical classification of conditions. Towards the conception of a real condition he has made the step of perceiving his own body as the constant central object of a world of other solid material objects, which is one logical pre-requisite of perceiving in them, or attributing to them, that character of dependence between objects, which we express by the terms *real condition* and *conditionate*. But he has not yet attained this perception. The perception of the external material world, taken alone, contains, as already shown, no perception of consciousness as distinct from matter. Consequently he cannot even locate his consciousness in his body, much less refer it to his body as its constant real condition. This accords with what we saw in the case supposed above (Chap. V. § 4), namely, that the percipient locates the visual perception of his own hands, when grasping one another, in his felt hands, and his tactual perceptions of them in his seen hands; that is to say, not in his hands as perceiving, but in his hands as perceived. Again, his body is perceived as the constant central object of a material world, but is not yet thought of as either being or containing a percipient of that world, or of itself. The perceptions of sight and touch, the

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combination of which is the perception of material objects, cannot be perceived *as perceptions*, until the material objects (which together they compose) are perceived as something from which they may be distinguished. Visual and tactual perceptions in combination give us, it is true, an external world with a constant central object, but they do not give us that constant central object as a percipient. Our experient, therefore, has made a necessary step towards, but has by no means reached, either the conception of real conditions and conditionates, or the conception that material objects stand in the relation of real conditions to one another, and thereby to consciousness also.

Turning to the other three heads of conditions, which are distinguished from real condition as being applicable to the phenomena of consciousness as such, or to consciousness in its character of a knowledge, as real conditioning is applicable to it in its character of an existent, we find that here too it is only certain steps towards this philosophical distinction that our experient can be supposed to have made. He cannot be supposed to have distinguished essential from contributory and logical conditions, or these latter from each other, because the distinction of them is not necessary to the reasoning process which he has carried on. He has argued in a way which we can afterwards bring under these distinctions, but he has not explicitly drawn them. He starts with perceptions, the essential conditions of which are inseparable elements, visual extension in perceptions of sight, and tactual extension in perceptions of touch.

The empirical perceptions constituted by these elements, though separable from each other, yet become, in further experience, and by means of association, contributory conditions of the perception of solid bodies. This perception once formed and sufficiently tested by experience, the perceptions which were its contributories become, when they recur, logical conditions, or evidence, of each other and of the whole perception, so that he always anticipates there being another side to a seen surface, even when for any reason it is beyond the reach of touch. The perceptions of relation, now called essential, contributory, and logical conditions, have, then, been present in the reasoning of our supposed percipient, but not known in that character. To him they have appeared in other shapes. What are these shapes?

The answer to this question takes us into the very heart of the subject, and refers us to the analysis of those acts which are the origin of all reasoning, acts of attention. To our supposed percipient, the process which we have described above (§ 3) as a modification of perceptions by attention and reasoning must have appeared, in his actual experience, to consist of successive groupings of perceptions, each of which groupings was confused and baffling, and therefore attended with a sense of difficulty, strain, or effort (called by us effort of attention), and was then followed by another grouping of the same perceptions, less confused than the former, but still attended with a similar sense of strain and effort, and was again followed by a fresh grouping, less confused,—until comparative order was introduced, and a grouping was attained

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which could be perceived and dwelt on with comparative facility.

Thus in the present instance, beginning with a group of varied perceptions of sight and touch confusedly intermingled, the first acts of attention would result in grouping together the perceptions of each kind, by observing their similarity to each other, and their dissimilarity from those of the other kind; which grouping would be easier to retain in consciousness than the original confused perception of the group. The next acts of attention would have for their result the grouping of certain perceptions of both kinds together, so as to form the perception of separate tangible and visible bodies; again a more complex, but easier, perception than that from which it sprang. Acts of a third kind would be acts of attention to the relative positions and movements of the bodies already perceived, including the perception of the percipient's own body as a central object, constantly present, whatever might be the surrounding objects which were present also; again a more complex yet easier perception, and including far more facts than those attentively observed in the first instance. Finally, acts of a fourth kind would issue in the distinct awareness of the difference between the bodies themselves and the void space in which they appeared to move from one position to another; though (be it noted) without separation of the void space between bodies from the space occupied by bodies, or hypostasising space as a continuous whole exclusive of bodies which occupy portions of it, a proceeding which would involve the mistake of counting

the same space twice, once as void and once as occupied.[1]

Each of these steps in the process would be perceived to be introduced by a sense of strain or effort (though not recognised as an act of attention), and to be followed by a grouping of the perceptions attended to, which required less effort or strain to hold in consciousness than the grouping which preceded it; so that the acts of attention (as we call them), which were at first purely tentative and involuntary, would end by being performed with the distinct expectation of their being followed by a grouping, or complex perception, which (though complex) would be easier to keep in consciousness than the former less complex grouping upon which it was directed. More would thus be found to be accomplished, in the direction of knowing, by a relatively more complex perception, though attained by effort, than if the effort were not made; and at the same time the more complex perception (provided all the items actually perceived were embraced by it) would be more easily held fast, than the actually perceived items un-

1 It is an empiricist fallacy to conceive a solid body, when in motion of translation, as detaching the portion of space which it initially occupies from the rest of space, and carrying it along with it to another part of space, which it occupies finally, or when it comes to rest. Space, taken by itself and as a continuous whole, cannot be thus duplicated. A solid body is a portion of space endowed (at least) with the properties of visibility, tangibility, and resistance to other portions similarly endowed. This at any rate must be our conception of it when it is originally experienced, though we may afterwards abstract from its visibility, for purposes of physical science, in consequence of drawing the distinction between its so-called primary and secondary properties. The motion of translation of a solid body must accordingly be conceived as an endowment of different portions of continuous space successively with the properties named, (space offering literally no resistance, but every part of it being wholly indifferent as to whether it is or is not so endowed); or, what is the same thing, a solid body in motion of translation must be conceived as consisting of those properties successively occupying different portions of one continuous, simply receptive, and absolutely penetrable space. This conception is equally applicable to the parts of a solid rotating body, even though, as in the case of a sphere, its rotation involves no change of place in the body as a whole, relatively to surrounding space.

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grouped into that single complex perception. This fact, of increasing ease and facility in holding perceptions together in a single conspectus, is the foundation in actual experience of what has been called above the Law of Parcimony; this being the law which governs the whole of Reasoning, considered in its character of a real psychological function, or mode of action, on the part of real percipients. It is the evidence for there being a law of action, in the real conditions on which reasoning depends, according to which that action follows the line of least resistance, that is to say, the line which requires the least expenditure of energy from moment to moment.

Recurring to the different acts of attention noted above as resulting in new groupings of the perceptual content, it is plain that, in acts under the first head, acts which group perceptions of touch together apart from those of sight, and those of sight apart from those of touch, we have a rudimentary instance of the logical processes of generalisation and classification by similarity of quality. Similarly in acts under the second, third, and fourth heads, we have rudimentary instances of attention to facts of experience simply as facts actually given, there being no perceivable reason whatever, why the percipient should put together certain perceptions of touch with certain perceptions of sight, save only the fact that they are actually and immediately perceived in conjunction, that is, occupying one and the same portion of space; nor again why he should assign to the conjunctions of them positions or motions relatively to one another; nor why he should distinguish void space from the

bodies which stand or move within it; save only the fact that these bodies, when once they have been perceived as such, are actually and constantly so given to perception, along with the fact of their difference from the void spaces which separate them, when once the complex perception of space void of matter has been actually attained by the same constructive process.

Thus what the supposed percipient actually perceives in the process of the experience described, taken merely as a process, amounts to this,—successive sensations of effort in perception, leading to more and more complex perceptions, each of which is more easy to grasp than its predecessors, inasmuch as a more lucid ordering of parts goes hand in hand with its increasing complexity. Or in other words, the percipient is actually aware of those facts in experience which are the content and meaning of what he will afterwards call acts of attention and reasoning, if and when he becomes aware of himself as a real percipient, whose acts they are. And these are the traces which experiences of the kind described were said above (in § 3) to leave behind them in his habits of mind, notwithstanding that the memory of the several experiences themselves has irrecoverably passed into oblivion.

But of all this the supposed percipient can of course tell us nothing. Or in other words, we ourselves, whom at this supposed stage of our experience, artificially isolated for analysis, the supposed percipient represents, know absolutely nothing of it, except by means of a philosophical analysis of the kind now instituted. If, however, as we cannot avoid doing, we suppose our percipient capable of

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reflecting, at the time, on the experience which he has just gone through, and then venture to imagine his reflections, and describe them in language of our own, we should most probably conceive, that his experience would appear to him as made up of two parts, one unquestionable, the other questionable. Unquestionable would be the basis from which his experience begins, the visual and the tactual perceptions consisting of inseparable elements. Not that he would recognise or be aware of the elements as such, I mean as distinct and inseparable. He would be aware only of the wholes which they constitute, the perceptions themselves. At the same time, it is the fact of the inseparability of their elements which makes him hold the perceptions as ultimate and unquestionable facts, units of perception beyond which he does not go.

Questionable, on the other hand, would be to him the composite objects which are formed, also in experience, by the union of these perceptions. The process is one of reasoning, and therefore of doubt, of questioning, of marvel. All is new at first. But the perceptions with inseparable elements admit of no doubt; they *are*. Whatever else is, there are they. But, sight and touch being exercised together, these unquestionable perceptions combine, as a matter of fact, into solid bodies; and this complex perception, whenever it occurs in actual experience, though not unquestionable in the sense of being ultimate, neither requiring nor admitting explanation, is yet an experience the more or less persistent reality of which is irresistible. Questioning it, therefore, can only mean asking *how*, *why*, or *whence* solid bodies come to exist as

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they do, and whether they are or are not indestructible, and their existence necessary.

Supposing our percipient to question them in this way, the only answer with which his experience, as now described, could furnish him would be this, that their existence was only necessary *if* (mark the condition, and its reference to his own process of experiencing,) the sense of doubt, questioning, and marvel, arising, not from the nature of the several perceptions as consisting of inseparable elements, but from that incomplete, expectant, and enigmatical character, which we have seen, that they possess in separation, is to be exchanged for a state of more easily intelligible comprehension, in which the mind can rest with satisfaction. But this answer would plainly not carry him beyond the fact which he knew already, namely, their *de facto* real existence ; though it would undoubtedly strengthen the impression, with which he began, that some other explanation of their *how*, *why*, and *whence*, was still requisite, before their nature could be fully understood.

To our experient, then, there *are* such things as solid bodies ; they really exist. They are complex and not ultimate facts, but still facts, and the knowledge of them is verifiable as true by repeating the experience. As a *de facto* experience, the existence of solid bodies is henceforth unquestionable. But will that experience always be repeated with the same result ? Is it an universal truth, a necessary experience ? It is itself *de facto ;* but it is not *de facto*, that it is necessary and universal ; by which terms I mean, that visual perceptions can never be experienced save in conjunction with

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tactual, and tactual never save in conjunction with visual. In this sense it is questionable, and must continue to appear so to our experient, inasmuch as tactual experiences and visual experiences are classifiable apart, by attention, as heterogeneous, the one kind from the other, and their actual combination, in certain instances, is not based upon any reason, such as similarity and dissimilarity, which are reasons for classifying them apart, as different in point of kind, but is a simple fact of experience and nothing more.

The nature of the separable perceptions of sight and touch, on the other hand, is strictly necessary and universal; that is to say, the experience of them as perceptions composed of inseparable elements includes representation and imagination, as well as presentation; so that their dissolubility as perceptions into their component elements is not positively representable in thought. In this sense, unlike solid bodies, they are ultimate facts in knowledge. Indissoluble themselves, they are essential components of that dissoluble perception, and to that extent furnish an explanation of its nature, whenever it occurs. The occurrence or existence of solid bodies, therefore, but not their existence as ultimate or necessary facts in knowledge, is an unquestioned fact in our percipient's experience; and it is only as its verifications accumulate, and the steps by which the knowledge of it was gradually built up fade from his memory, that he accepts the existence of solid bodies in space as a primary and ultimate fact of experience, primary in knowledge, ultimate in reality, which is the character it bears for every one before he begins to philosophise.

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Thus metaphysical analysis in some sort restores us to what must have been our original questioning attitude, with regard to space and matter, by discovering the distinction between separable perceptions and inseparable elements of perceptions; thus discounting the effects due to association alone in forming our first conceptions of ultimate facts, and pointing out the hypothetical element which some of those conceptions contain.

Our supposed experient thus acquires, through his experience, some knowledge of the process of his experience. It is to him a process of doubt and questioning, satisfied by reducing concurrent perceptions to complex harmonies, and verifying these by repeated perceptions. There is laid in it a positive foundation for the distinctions to be afterwards drawn, (1) between that which is fact simply and that which is universal and necessary fact, (2) between that which is contingent, the *yes* or the *no* of an imagined alternative, and that which is determinate, the *yes* or the *no* of a fact. The distinction between dissoluble and indissoluble combinations, and the conception of a harmony of concurrent perceptions, as the end or purpose of all reasoning processes, without aiming at which no processes are reasoning in the full sense, have also struck root. The same might possibly be said of the distinction between the abstract and the concrete, inasmuch as a process of abstraction is certainly involved in the formation of the finally reached conceptions of space and matter; and perhaps by as good a right as it may be said of the three classes of conditions with which we began.

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Starting from these finally reached conceptions, void space and solid matter, what do we ourselves gather from the analysis of their acquirement by our supposed percipient, as given in the preceding pages? Has any real light been thrown by it on the nature of these complex perceptions? To this we may reply that, abstract as they are, the visual and tactual perceptions, which have been their contributories, are still perceivable among their essential conditions. When we cease to use their names as symbols, and ask *what we mean* by space, and *what we mean* by matter, thus fixing the attention steadily on the perceptions themselves, the lines of their formation grow clear, and we are aware of the combined visual and tactual perceptions involved in the content of each conception. *Space* is the name for the combination of the extension derived from sight, and the extension derived from touch, abstracting in thought, so far as possible, from the sensation elements of both senses. *Matter* is the name for the sensation-elements derived from both senses, abstracting in thought, so far as possible, from the extension-elements of both. Matter in its utmost abstraction, supposing complete abstraction possible, would be *Force*, something tactually felt; space in its utmost abstraction would be *Vacuity;* which conceptions may therefore properly be called the limits, at infinity point of the abstracting process, of abstract matter and abstract space respectively. Observe, I say at infinity point of the abstracting process, that is, an imaginary point, not possible to be reached without abolishing in thought the object of the abstracting process, or in other words, a point at which abstract matter would

cease to be matter, and abstract space to be space. It is only within the limits thus set, that is, short of the imaginary infinity point in the abstracting process, that either abstract matter or abstract space is intelligible. Pure Force and pure Vacuity are names only.

But abstract, and apparently simple in their abstraction, as the conceptions of Space and Matter are, they are yet dissoluble, because the concretes from which they are formed, that is, perceptions of solid bodies, are dissoluble, being partly products of association. Simplicity in an abstraction by no means implies indissolubility. On the contrary, the true indissolubility is in concretes; among these it is that the utterly indissolubles are found. Visual sensation and its extension; tactual sensation and its extension;—these are instances of indissolubility resting neither on abstraction nor on association; and these are concrete perceptions immediately given to consciousness.

CHAPTER VII.

THE WORLD OF OBJECTS THOUGHT OF.

§ 1. Consciousness as distinguished from Matter.

§ 1. From the general considerations which formed the conclusion of the foregoing Chapter I now return to the main course of the analysis of experience. We have separately analysed, first, some experiences in time alone, and then some experiences in time and space simultaneously, and have seen that the latter, those of visual and tactual perceptions, result, when experienced together, in the further experience of an external material world, having the body of the percipient as its constant central object; a world which is at first recognised only in its character of material externality, without recognition of the fact that there is any difference between perception and matter, and consequently without recognition of its central object as the seat of perception. In fact, from these latter experiences alone the percipient acquires no knowledge, that the objects thereby known to him are groups of his perceptions as modes of consciousness, or that his consciousness of them is located in the constant central object, which he afterwards calls his body.

Strange as this result may appear to our ordinary prepossessions,—inasmuch as we usually think of a

percipient as acquainted originally, and in right of his existence, with the distinction between himself and external things, and suppose him never entirely to lose hold of it in any instance of perception,— yet a very little thought will show that it is correct. We have originally no knowledge of external material things save in the shape of grouped perceptions or states of consciousness. But until we have acquired a knowledge of these states grouped as external material things, a knowledge acquired by means of associative processes identifying visual with tactual perceptions in point of locality, and by attending to their combinations (though without consciously classifying them under general terms), we can have no knowledge of states of consciousness simply, or not so grouped, as contrasted with them. Consequently they must in the first instance appear to us as complex realities or external material things, in order to their being afterwards contrasted with perceptions which are the consciousness of them, and ultimately distinguished into the two contrasted but inseparable aspects, of objective thoughts on the one side, and objects thought of on the other; or to express the same thing in other terms, of material things as in consciousness and material things as in existence.

Thus, until we have acquired the knowledge of external material things, all our knowledge consists of certain processes and contents of consciousness not yet recognised as such, that is to say, not yet brought under the conception of consciousness as a knowing. Neither have we, till then, any knowledge of our own perceptions as *ours*, because the

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Self or Ego has no known independent existence until the organism has been perceived as the material centre of a material world, and the constant object of a connected consciousness. The first basis of meaning of *The Subject* is—connected consciousness *plus* this one central, constant, material object. It was shown from the analysis of attention, in an earlier Chapter, that perceptions in time alone give no knowledge of effort or action, or of an agent or percipient of any kind. This knowledge must therefore have some other source than perceptions in time only. And this source can only be found in experiences which give the perception of something which, relatively to the ceaseless changes of the time-stream of consciousness, is permanent, and yet in close connection with them; and the first or lowest instance of such a permanent object is found in the experience of the body as the constant central object of the material world. Consequently it is true, strange as it may seem, that, until we have perceived states of consciousness grouped together, and varying together, in solid masses occupying three-dimensional space, groups which we afterwards call material objects, we have no knowledge, either of our Self or Ego as percipient or conscious agent, or of the fact that what we immediately perceive is consciousness and not matter, or even of what the terms *consciousness* and *perception* mean; because we have, till then, nothing but states of consciousness occurring and recurring (as it is called), successively or simultaneously, in a time series, that is, nothing but themselves, to compare them with, or distinguish them from. The first

great differentiation of consciousness from an existent which is not consciousness arises as a differentiation of consciousness within itself; that is, of one mode of consciousness, namely, pure representation, from another mode of it, namely, relatively permanent groups of visual and tactual perceptions (presentative and representative together) occupying space in three dimensions; which latter experience, including of course the percipient's own body, is what I have called our experience of the external world.

In maintaining that the perception of the external world does not alone suffice to give the perception of the contrast between consciousness and material things, I must be understood to speak from the analytical or metaphysical, not from the historical or psychological point of view. In what has preceded, I have selected certain kinds of perceptions for analysis, and have shown that the combination of two of them in association is the perception of the external world; but I have not maintained that these perceptions arise in the life-history of individuals, either in the infancy of the race or at the present day, in the order in which I have taken them for the purposes of analysis. The perception of an external world, as I have here presented it, is not maintained to correspond to any single assignable epoch in an individual's life-history as a whole. Neither do the senses of sight and touch, including the muscular sensations and sensations of effort and attention, which are involved in that exercise of them to which our perception of an external world is due, operate together, in psychological history, in isolation from

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other perceptions, whether of sense or emotion, as they are supposed to do in our analysis; nor do they come in by themselves after a previous experience of feelings occupying time only, as they do in the order which our examination has followed. What the foregoing analysis has done is to name those perceptions, in the total concrete course of an individual's experience, which are the sole sufficient and necessary constituents of his perception of an external and material world, and to show how this latter perception arises out of their combination.[1]

In the history of an individual's experience, all his perceptive powers have, broadly speaking, operated and developed together, and since we have neither analysed this combined operation and development contemporaneously with its taking place, nor can now, when we attempt an analysis of experience, remember the different stages which it has gone through, therefore it is that we find ourselves confronted with its results alone, namely, the common-sense form of experience, a world of Persons and Things, Actions and Events, as our *explicandum*, or problem to be dealt with, when at last the desire for analysing our experience arises, and we begin to philosophise. This latter epoch, the first beginning of philosophy, must be dated from the moment when we first begin to enquire into our knowledge or consciousness of objects, as

[1] Readers who have attention to spare for the minutiæ of the subject may be referred to a passage in *The Philosophy of Reflection*, Vol. I., pp. 266—7, "It is a much discussed question . . . . considerations are supreme"; from which it will be seen that I have now gone farther in the metaphysical analysis of the perception of solids, than, owing to a somewhat imperfect grasp of the relation between metaphysic and psychology, I then thought possible. The fact that associations depend upon physiological processes does not withdraw them from metaphysical analysis, so far as they are processes in consciousness alone.

distinguished from the objects themselves. And the epoch of its establishment and recognition as a distinct and independent kind or method of knowledge, in differentiation alike from common sense and from science, must be dated from the moment of our perceiving, for the first time, that our whole knowledge, including that of material things, is a form of consciousness, and therefore, that what in common-sense experience we had been accustomed to call Matter, or in other words, our pre-philosophic notion of Matter, in which Matter is taken to be wholly independent of ourselves, and wholly contrasted with consciousness, notwithstanding that our whole knowledge of it consists of consciousness, is something which requires accounting for.[2]

It is reasonable to suppose that the notion of matter which we derive from common sense, and hold before we begin to philosophise, will be very different from the conception which we form of it after philosophical analysis, whatever the particular conception may be, to which we individually come. Our common-sense and pre-philosophic notions of every sort are those which have been formed in the course of our life-history and psychological development, and since this development has not been analysed and corrected by us during those early stages which supply the fundamental notions employed and incorporated in the remainder, it is probable that those notions will contain many unwarranted assumptions, which it now becomes our duty to detect and scrutinise by philosophical

[2] If, having recognised that our whole knowledge is a form of consciousness, we assume or infer that nothing exists save consciousness, we are in the strict and proper sense Idealists.

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analysis, and if unverified discard, if verified retain.

It is, of course, not pretended, that we can reconstruct in memory the actual course of our experience in the distant past, so as to examine it analytically, as if it were a recent and well-remembered experience. We cannot possibly recall for analysis, from oblivion, the self-same experiences from which our common-sense notions have resulted, but we can distinguish and analyse the different threads out of which those notions have been woven, because we find them continuing to weave those same notions in our present actual experience, after as well as up to the date of our consciously setting to work to discriminate and analyse them. What we analyse in philosophy is the actual formation, in the present, of common-sense notions, which analysis is *eo ipso* a criticism and reconstruction of them.

Metaphysical analysis, therefore, is something quite different, in its purpose, its method, and its results, from either psychological or anthropological investigation of the *de facto* chain of events, or any part of it, which constitutes the life either of an individual or of mankind collectively. It treats experience not as a chain or combination of events, the laws of which, expressing observed similarities in the sequences and co-existences which compose it, have to be discovered, but as a Knowing, the comparative validity, permanence, and universality of whose parts, relatively to each other and to the whole, it is its duty to ascertain. In this sense, it criticises and controls the results of psychology and psychological history, as well as those of the

actual development itself, embodied in common-sense notions. Its great question is, What does experience really tell us, and how far does that coincide with, or differ from, what we imagined that it told us, before we began to analyse it subjectively?

The analysis of the three foregoing Chapters has been directed to answer this question in the case of Matter, and has advanced in that direction so far as to give the analysis of the perception of an external world, from which we have now to proceed to its more specific perception, or recognition as material. Keeping this question in view, we shall find, if I mistake not, in this and the following Chapter, that our conception, or complex perception, of a Percipient will be analysed also. Hitherto no Percipient has been met with in the analysis. We have used the common-sense knowledge or assumption of a percipient, because we have had to speak in common-sense language, but we have framed as yet no conception of one, which can be used with precision, or the object of which can be used as a verifiable or working hypothesis in psychology. The first question about percipients, as about matter, is not whether they exist, but what they are, what we mean by the term. No assertion that they exist, and no appeal to common-sense to support the assertion, will avail to answer the prior question *What?* or serve as a substitute for putting it. And if we begin with an arbitrary definition, and here again appeal to common sense for its support, still the terms of that definition must have a definite and precise meaning before it can be admitted, and the analytical question *What* must be answered in the case of every one of them.

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We are thus brought to the threshold of an entirely new experience, and one which is among the cardinal distinctions or turning-points of the whole enquiry. The perception of the meaning of the term *consciousness*, or, what is the same thing in its origin, the perception of consciousness and of material things in mutual contrast to each other, is the experience which we are about to examine. But consciousness as contrasted with matter is consciousness understood in a narrower and more specific sense than that in which we have hitherto taken it; it is consciousness, not simply self-perceived, or objectifying itself, in reflective perception, but perceived, in addition to this, as the object of a conception, the object of a thought, pre-supposing comparison and contrast with something which, as contrasted with it, is thought of as not-consciousness. It is consciousness with all its content, objective and subjective moments together, taken as an existent, and therefore as something individual, and located as an existent (as will appear presently) in the body of the percipient, the constant central object of his material world; a consciousness which, so far as it may be found to condition or be conditioned by the percipient's body, is the object-matter of psychology. Thus, consciousness as the object of a concept contrasted, but having objective relations, with matter,—consciousness individualised as an existent,—and consciousness as inhabiting the body, in which it becomes the object-matter of psychology,—are three things which coincide, and which make their appearance in the field of experience at one and the same

moment, when that field is treated analytically, as it is by philosophy.

§ 2. The whole concrete perception of the external world is the object which we have now to analyse, with the view of seeing what further features it contains, and must inevitably disclose to percipients. When any supposed percipient has reached that concrete perception, he must be supposed also to have reached it in connection with all other parts of his already acquired experience, if any such there be, not included in it. I say *if any such there be*, because we have here been abstracting from all experiences which are not perceived as part and parcel of that external world, of which we are now supposing him to be percipient. The distinction which has been drawn and made use of in our analysis, between perceptions which occupy time only and perceptions which occupy time and space together, is not one which we can assume him to be aware of, on first attaining the perception of an external world. Sensible qualities other than those of sight and touch will almost certainly at first be attributed by him to visible and tangible objects; that is to say, sounds, odours, tastes, will seem to him to be inherent properties of material things, inasmuch as they will be experienced only in immediate connection with them. The pleasures and pains directly received from all such objects he will also most probably conceive at first as inseparable from them. And even his other feelings of pleasure and pain of various kinds, whether organic, emotional, or volitional, the sources of which are not immediately obvious, will either be referred as

properties to his own body or parts of it, or else be left outstanding and unreferred, not at first attributed to anything by way of rendering them intelligible. There will thus be a great mass and variety of experiences, which, at the moment of attaining the perception of the external world, will be open to further explanation, even if they do not of themselves suggest the need of one.

But although we know, from our foregoing analysis, that this whole varied mass falls under one or other of the two heads, perceptions in time only and perceptions in time and space together, yet we cannot assume that our percipient will be aware of this distinction, still less that he will make use of it in classifying and interpreting his perceptions, at the present supposed juncture. If we could suppose him to analyse his experience as he acquires it, portion after portion, the case would be different. But as it is, we cannot take this distinction to be the one which next arises into his consciousness, and so serves him as a clue in construing his data. At the same time we know that, whatever that construction may be, it must harmonise with this distinction, that is, the results reached must be capable of subsumption under it.

Let us, then, understand our percipient's experience of an external world as possibly containing and incorporating all his particular experiences of every kind, but let us at the same time reason about it only in its lowest terms, that is to say, take its objects as consisting solely of combinations of sight and touch perceptions, with their necessarily involved adjuncts of muscular feelings and sense of effort; and this in order to see what

the continued experience of such a world necessarily involves, and to what distinctions it necessarily and immediately gives rise, so soon as it is taken in connection with feelings or experiences thus excluded from it.

Now although the distinction between perceptions in time alone and perceptions in time and space together is not as yet drawn by the percipient, still the perception of a concrete material object, since it involves the representation, as well as the presentation, of sense perceptions, requires attention both to the time-relations and to the space-relations of those perceptions, and to their synchronisation. So soon, therefore, as our percipient begins to attend to the relations of material objects to each other, as distinguished from attending merely to the perceptions which compose them, or to their construction out of perceptions, a new feature not hitherto observed, namely, the difference between the order and series of representations and the order and series of presentations and representations together, will force itself upon his notice.—I may remind the reader, that the analysis of an earlier Chapter (Chap. II.) has shown, that the simplest sense-presentation involves, and in one sense is, representation ; and it is a simple matter of fact (independently of any explanation of it), that representations are constantly occurring, and occurring in connection with one another, without any sense-presentation of their represented content. The terms *presentation* and *sense-presentation*, when used alone for brevity, must always be understood, in what follows, as having representation involved

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in them, in the manner explained in that earlier Chapter, though opposed to representation taken alone. — These two orders will accordingly, on attention being paid to them, appear different, each following its own course and having its own content, but with moments of synchronism and coalescence with the other. And every material object but one will seem to have a double history, one in each order, except at the moments when the two orders synchronise and coalesce. By the one excepted object I mean, of course, the percipient's own body, which is the constant central object of his external or material world.

The position which I am about to maintain is, that consciousness, as a perceiving generally, is not distinguished as such, all at once, from perceived material objects, but that this distinction is only gradually attained; that one mode of consciousness, namely, pure representation of material objects, is the first to become distinguished, as consciousness, from material objects; and that it comes to be so in and by the experience of expectations being deceived, which have been founded on representations, an experience which also compels the percipient to localise his pure representations, as a mode of consciousness, in his body.

It is difficult, if not impossible, to select an instance of this procedure, which both makes my meaning evident and also is clearly independent of the subsequently attained perception of the percipient's body, or of himself, as the Subject of his consciousness generally. I must therefore beg the reader to ask himself whether, in the instance I am about to give, the resulting conviction really

depends upon any circumstances, other than the deceived expectation of actual presentations, whereby the latter are sharply distinguished from actual representations and the expectation founded on them. I think it will evidently appear, that this alone is the determining circumstance.

A child, let us say, has one morning been playing with a favourite dog, and on being summoned away to dinner, has left it lying in its basket by the fire. On his return, the dog is unexpectedly absent from the basket and from the room. The child bursts into tears. He had expected the dog to be there to play with him. He had expected at least to see him in his basket. The dog has for him a double existence, one in the order and series of his representations, another in those of his presentations and representations together. He wants the two dogs to synchronise and coalesce; they will not do so; hence his surprise and grief; hence also his perception of the radical difference between the two orders.

This instance brings to light the particular kind of experience, or rather the essential circumstance experienced, in which our perception of what is commonly called the real world as distinct from our consciousness or knowledge of it, and *vice versa*, originates, notwithstanding that the child, who is the Subject of it, may be pictured as already a self-conscious percipient; since nothing in the inference which he is here supposed to draw depends on that circumstance. On the contrary, his attainment of the perception of himself as a percipient, that is, his becoming a self-conscious

percipient, seems to depend upon his having had previous experiences of deceived expectation similar in kind to this, experiences which initiate and compel the perception of a difference between consciousness perceiving and consciousness perceived. For the room, the basket, the dog, and the percipient's own body, as consisting of presentations and representations together, are first experiences of the real world, in this new sense of the term *real*, meaning *contrasted with consciousness;* new I mean in regard to what has gone before in our analysis, but old and most familiar in common-sense usage. The representations of the dog in the room or in the basket, not coalescing with presentations of it, are a first experience of trains of consciousness apart and distinct from reality.

But this is only the origin of that perceived distinction in its full range, or as it will afterwards be found true of consciousness generally. Further experiences, harmonising with and pre-supposing it, subsequently compel us to infer, that the real dog has a continuous existence and history, when dropped out of the order and series of either our presentations or our representations, and also that the order or series of our own representations has a continuity and consistency of its own, in point of content, apart from its harmonising or not with the trains of consciousness which consist of presentations and representations together. But all further advances in knowledge of this kind pre-suppose, as their antecedent condition, that first kind of perception which we have of our consciousness as distinct from matter,—namely,

consciousness in the form of representation,—and of that form of it being located in our own body.

I now turn to this latter perception, the moment or perception of location. In all experiences of which we are distinctly aware at the juncture supposed, I mean at that of our first distinguishing experiences belonging to the order of representations alone from experiences belonging to the order of presentations and representations together, there is always one object which is constant, that is, remains an object of presentation and representation together, whatever other objects may vanish from the presentative field; and this object is the central object of our spatial panorama, alike in presentation and in representation. I speak of course of the body of our supposed percipient. His own body will therefore, at all times of distinct waking self-consciousness, be perceived by him as a real existent, while other real existents will sometimes be perceived, sometimes not. But his series of representations will always at such moments be perceived by him, whether or not any presentations, other than constituents of his own body, accompany or enter into it. He will, therefore, necessarily perceive his series of representations, which are now sharply distinguished from real objects made up of presentations and representations together, as located in his body, which is the central object of its representational panorama, and the only real object which is invariably present in consciousness. He will locate that series in his own body, in the same sense and for the same reason as he locates odours, tastes, and

sounds, in material objects, as their inherent qualities or attributes.

The series or panorama of pure representations does not shake off its character of forming a time-stream in consciousness, by having become sharply distinguished from the external material things, the representations of which it contains. At the same time it is evident, that the series of representations of real things other than the percipient's body is not the whole of the time-stream of his consciousness. It is only one current, one strain, in it; the remainder consisting now of presentative perceptions only (in the usual sense of the terms), now of combinations of presentative and representative perceptions (or 'real objects' in the usual sense), and coalescing with the current of pure representations, so as to form one complex but undivided stream, at and during the moments called moments of presentative perception. But the discrepancy between the current of pure representations of material objects and the current of experiences consisting of presentations and representations together is the special fact or phenomenon, which compels perception of the difference between the so-called real world of material things and the time-stream of consciousness as a whole. That is to say, the perception of this discrepancy is afterwards, in subsequent experience, extended to the whole time-stream of consciousness, of which the series of pure representations is an inseparable portion.

The first perception of this discrepancy is therefore but the first step in a process of constructive experience which, as our foregoing analysis enables

us to anticipate, can have no limit short of establishing (theoretically at least) such a complete and thorough-going equivalence between our objective thought and objects thought of, or between the order of knowledge and the order of existence, as will satisfy the requirement of complete equivalence between the subjective and objective aspects of experience, constituting reflective perception itself. For a new instance, to which the terms *subjective* and *objective aspects* are applicable, has been disclosed in and by the perception of an order of pure representations located in the body of the percipient, face to face with an order of representations and presentations combined, which is perceived as a world of comparatively real things. This latter order is an object to the former, in just the same way as visual perceptions were said above to be objects of tactual, and tactual of visual. That is to say, the whole real world, of presentations and representations together, is objective to the order and series of representations taken alone, and this latter is a subjective aspect or knowledge of that world, as distinguished from its real existence.

This newly disclosed sense of the terms *subjective* and *objective* aspects will have to be followed out and traced in the phenomena of experience, in order to harmonise it with the sense previously explained, which is also a fact of experience, a fact given by reflective perception simply. This we shall do in tracing the further process of constructive experience, subsequent to the perception now analysed, in which it originates. It will then, I think, be found, that the next decisive step in

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that process involves the discovery of the subjective character of the very presentations (loosely so called) which compose real things, as distinct from the representations of them, which are taken as subjective to begin with. This, however, is a task which must be reserved for the following Chapter, in connection with the conception of real conditioning, from which that discovery is inseparable.

Returning to the point supposed to be now attained by our percipient, the first perception of the time-stream of consciousness as different from real things is given, as already said, in and by the perception of the stream of pure representations as different from those things, this latter stream being really (as we know from analysis) an undivided part of the former or total stream. This stream of representations, and therefore (subsequently) the whole time-stream of consciousness, our percipient necessarily locates in his body, which he perceives as a real thing, constantly present, and the constant centre of his whole external world. And this fact or perception of the location of consciousness (by means of its purely representational part) in the body of the percipient is a decisive and fontal moment, which governs and colours all his subsequent experience. It is the first indispensable though still imperfect step, towards his perception of himself as a real conscious being or percipient, which we know is that conception of common-sense experience, to which, prior to philosophic analysis, all our other conceptions are subordinated.

It is impossible to maintain, that the perceptions or feelings of pleasure or of pain, however intense

or peculiar, or that the perceptions or feelings of superior or irresistible force in things or persons external to the body, or that the perceptions or feelings of effort, attention, or putting forth of power, are severally or collectively the source of the conception of a real Subject or Self. These feelings or perceptions, taken alone, can only enforce, amplify, and complete that conception, after its virtual attainment; they cannot alone and originally give the indispensable basis of it. Until the perception of a real and comparatively permanent object, as the seat of consciousness, has been attained, those feelings or perceptions have nothing to which they can be attached; there is no perception of a reality (in the ordinary sense of the term) to which they can belong, or by which they can appear to be either felt or exerted. But this perception of a reality other than consciousness is first given, and is only given, by the perception of the percipient's own body as a real and material object, among, and as the constant centre of, the other real and material objects which, in consequence of the combination of visual and tactual experiences, constitute his perceived external world.

Now both the perceptions which constitute the Subject's perceived external world of material things, including his own body, and the perceptions which constitute his order of pure representations, are alike objects of reflective perception in time; and it is the identity in point of time between the perception of his body and of all the successive moments of his order of pure representations, in all cases where he has distinct

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waking consciousness of his experience, which identifies these two sets of perceptions with each other, in point of time and space order, so as to compel their coalescence. The perception of the Subject's own body as a real object in space is different from, and yet synchronises with, all the moments of his pure representations, and it is the only object to which this description applies. The child perceives his own body in presentation, when he perceives the absent dog in representation only; and he never perceives the dog, either in presentation or in representation, without perceiving his own body in presentation. The location of consciousness in the body means the identification of the two in respect of space, because identified in respect of time, the two being different in respect of kind; the one, that is, consciousness, consisting (at first) of pure representations, the other being a real and material object. It is this difference in kind which hinders complete identification, and establishes the relation between them as one of coincidence or coalescence. Hence our percipient perceives himself, from the first and afterwards, as a single real Being, made up of two heterogeneous elements, body and consciousness (the latter in but one mode of it at first, afterwards in all), in apparently inseparable but always distinguishable union. Add but the conception of real condition, and we should have the full conception of that single real Being as a Percipient or Subject. I mean, that the proximate real condition of the arising of consciousness above the threshold, be it what it may, is the Subject of that consciousness; and therefore, supposing proof to have been given, that

the body, or nerve system as a part of it, is not only the object in which consciousness is located, but is its proximate real condition, then the body, or nerve system as a part of it, becomes its Subject in the strict sense of the term.

Speaking, then, of the stream of pure representations perceived as located in the body of the percipient as his consciousness, though it is not the whole of what he will subsequently perceive and name as such, I proceed to note the new sense which comes thereby to be attached to the terms *subjective* and *objective aspects*, as they were distinguished in simply reflective perception. In consequence of the moment of location, the line between Knowing and Being may be drawn quite differently from the way in which we were led to draw it by analysing the moment of reflective perception simply. There we saw, that consciousness was known in its entirety *to be*, or *as being;* and in reflective perception of the external world, some modes of that total consciousness were known, not only as being, but also as being in and occupying space, in contradistinction from other modes which occupy time only. Still, up to the moment of location, the whole stream and content of consciousness is objectified as a whole by reflective perception, and is perceived as a whole identical, in point of content, with the perception of it; of which perpetually renewed moment of perceiving it is itself the objective aspect.

But this relation of the two aspects to each other begins to be changed, or rather obliterated and dropped out of view, so as to be recoverable only by analysis, in and by the moment of location.

§ 2. First Location of Consciousness in the Body.

The whole objective aspect is thereby perceived as divided into two parts locally separate. The consciousness which is now perceived as located in the Subject's body is thereby separated locally from the consciousness which is perceived in the form of material things external to the body. At the same time, as we have seen, it is perceived as disparate from all material things, the Subject's own body included, and as being the representational knowledge of them.

The body, therefore, must seem at this supposed juncture to possess, or be the seat of, an existent consciousness, which is or may become a knowledge of material objects of any kind, provided they are capable of being presentatively as well as representatively perceived. Or in other words, consciousness conceived as located in the body of the percipient now stands in the relation of subjective aspect to the material objects, of which it is the representation. And this enables the psychological distinction between consciousness, as an existent inhabiting the body of a percipient, and the material objects which it represents, to supervene upon, and for a time obliterate, in the conceptions of philosophers, that larger philosophical distinction between consciousness perceiving and consciousness perceived, as respectively subjective and objective aspects of each other, which we saw arose immediately from analysis of the phenomena of reflective perception, in their simplest and most general shape. The two senses of subjectivity now distinguished, the psychological and the philosophical, are essentially different, and form a striking contrast to each other. And confusing

between them, from whatever cause, and however difficult to avoid, has, more perhaps than any other confusion, wrought havoc with unphilosophical philosophies.

For it must be noted, that the older philosophical distinction of the two aspects, which is rooted in reflective perception simply, and is essential to all consciousness, is not superseded, or the fact of it rendered inoperative, by the psychological distinction which, in our process of analysing, now supervenes upon it. Reflective perception, as analysed and set forth in earlier Chapters, is the inherent form and nature of all consciousness, whatever its content, whatever its objects. This form and nature consciousness carries with it, even when conceived as the consciousness of an individual Subject; and to this original form and nature is due the Subject's apparent power of making his consciousness its own object, and of perceiving it as an existent in connection with matter its fellow existent, of which as disparate it is the knowledge. Matter as an existent is not the only object of consciousness. Consciousness as an existent is fellow object with it. And the two existents are indispensable constituents of our first conception of a Conscious Being or Subject. which conception is the basis of psychology. Both severally and in combination these constituents are objects of reflective perception, which is the form and nature of consciousness itself, the form in which all experience actually occurs; though this fact is discovered only by philosophical analysis penetrating, as it were, below the surface of commonly accepted notions. Without the distinc-

tion which is the basis of philosophy, the distinction which is the basis of psychology could never have been drawn.

§ 3. Common-sense conception of The Subject.—The notion of *Cause.*

§ 3. Our next task is to consider how the percipient, at and from that moment which we have called the first moment of location, will conceive of the world of his experience, without the knowledge (which comes only with philosophical analysis), that its real and material objects are known to him solely in the form of modes of consciousness, and are what in philosophical analysis we have called objects thought of. And in the first place it is clear, that to suppose him devoid of this philosophical insight is to rob him of the perception of the necessary relativity of objects to consciousness. We must therefore strike this relativity out of his experience, or in other words think of him as conceiving all real existents as *absolutes.* His perception of real things, his own body included, is what I have called face to face perception, which, without the philosophical perception of its relativity, involves his thinking of those things as simply "given" to him in perception, no question, as to what perception involves or means, being yet possible.

This character of absoluteness in the real things perceived at and from the moment of location, though arising solely from failing to analyse experience as it is acquired, is a very striking feature in all pre-philosophic thought. It is one of the most unwarranted assumptions, and also one of the most potent prejudices, of pre-philosophic man. It applies equally to persons as to things, so soon as persons other than himself are perceived as

forming part of a percipient's real world. Perhaps I should say, it applies to things equally with persons, since probably, in historico-psychological development, persons other than himself are the first real objects which dawn upon him, at the moment of location. It is moreover probable, that his first conceptions of inorganic and unconscious real objects will be drawn from those which he has previously formed of living and conscious real objects, that is to say, of persons; just as his conceptions of persons will be drawn from (though formed *pari passu* with) his conception of himself, as a body inhabited by a consciousness. But at whatever epoch we may choose to look in upon his development, prior to the full philosophical recognition of relativity, we shall always find this character of absoluteness attaching to some, be it few or many, of the objects which he holds to be real in the panorama of his experience.

It will be advisable here to advert to one of the main aberrations of thought which are due to this false imagination of absoluteness in real objects, though to do so will involve some consideration of what is to form the main subject of the following Chapter, the conception of Real Conditioning. We saw at the close of Chapter VI., that the attitude of the percipient in presence of his external world would be one of questioning, some things appearing to him questionable and others unquestionable. We have also seen in the present Chapter, that the consciousness, which he comes to perceive as located in his body, consists originally of pure representations, as distinguished from real objects, which are composed of presentations and representations

together; but with this representational consciousness are combined, or rather in it are included, as experience accumulates, all those feelings which appear, from time to time, to have no counterparts corresponding to them in material objects. If, then, our percipient had recognised, in consequence of analysis, at the moment of location, in what his consciousness, and in what his body, consisted at that moment, and that what he was perceiving was in fact a location of one in the other, he would have put at least two questions—first, How comes this consciousness to be located in that? and secondly, How come the two kinds of consciousness to be different? The question of real conditioning would in this manner have virtually been raised.

But this is not the course actually taken by the historico-psychological development, either of individuals or of the race. The analysis which would have been requisite to initiate it was in reality an impossibility. The moment of location is that in which the recognition of consciousness as distinct from matter originates; till then, neither matter nor consciousness are known severally as such, that is, they are not known as distinguished, one from what is not material, the other from what is not consciousness,—distinctions which must have become already familiar, before the identity of the two, in point of being alike objects of consciousness, can be perceived. A consciousness more elementary than that which is a knowledge of matter, I mean consciousness in time only, and only objective to reflective perception, could not have been called by the name of consciousness as a

distinctive term. Neither was there any other third thing perceivable or imaginable, which might serve, either as common genus of the two in thought, or as their undifferentiated matrix in reality. Therefore no question of genesis, of the *how* or the *why* of either, could at that time arise. Consequently the idea of real conditioning could not possibly have been suggested. On the contrary, prior to putting the question of real condition, in the simple shape which analysis of the phenomena (had it been possible) would have suggested, our percipient, from not recognising what he perceives as a location of one mode of consciousness in the object of another, begins by forming the conception of absolute real beings, either of the inorganic and unconscious, or of the organic and conscious type; and his questioning, when it takes place, is then thrown into the form of a question concerning the actions or activities of those absolute beings. Now any such absolute being, considered in action or activity, is considered as a Cause. Our percipient thus puts the question of causation to phenomena, instead of the question of real conditioning; the conceptions of cause and causation being historically prior to those of real condition and conditioning, although they involve and pre-suppose the latter as undistinguished elements not yet discovered or discriminated by analysis.

If percipient beings, on attaining the perception which I have called the moment of location, could have treated material things simply as real conditions of the consciousness which they then began to distinguish from them, and which they located in bodies as the constant central objects, each of

an individual consciousness, they might have proceeded at once to psychological science, passing over the preliminary stage of the common-sense form of theorising. For this it would only have been necessary to observe, that positions, states, and movements of the body, concurrently with those of objects external to the body, were followed and accompanied by changes in the character and course of states of consciousness, existent and located in the body; and that, without such concurrence on the part of the body, the experiences would have been different. This would have given the general conception of real condition, as an answer to questions of genesis. After this it would have been necessary to follow out that general conception in detail, by analytical and experimental determination of the particular movements within, or on the part of, the body, which were the conditions, concurrently with conditions in the environment, of particular experiences, and scientific psychology would have been entered on.

I say this partly in order to show the close affinity between the common-sense and the scientific view of experience. The actual course of human development has, we know, been very different. The common-sense form precedes and is the presupposition of the scientific, and remains standing side by side with it, as well in scientific as in non-scientific minds. The world of positive science is, in fact, neither more nor less than the world of common-sense experience reduced to classification, measurement, and law, founded on the discovery of the true course of real conditioning taken by its phenomena. Both logically, therefore, and histori-

cally the common-sense form of experience precedes the scientific, notwithstanding that both have a common root in the conception of real condition. The difference between them is, that this conception presents itself originally, that is, in common-sense thought, in the shape of Cause; and it is only when disentangled from its wrappings, and presented distinctly in the shape of Real Condition simply, that it becomes the basis of science, and marks the moment of its branching off from the parent stem of common-sense conceptions. In short we may say, that, while science is founded on the conception of real condition, the common-sense view of experience is founded on one, in which that of real condition is involved but not explicitly recognised, the conception of cause.

It is at the moment of the perception of cause, the moment of origin of systematic common-sense experience, that we are now standing. We have just seen what is meant by the body with its consciousness being conceived as a single reality with a double nature, in presence of other real existents, some of which will plainly and obviously seem possessed of the same double nature also, that is, will be perceived as persons. Let us next see more minutely what is meant by saying, that this real unit with a double nature is conceived as a Cause.

We may provisionally define a Real Condition as something upon the occurrence or continuance of which, in given circumstances, something else occurs or continues, which would not do so without it; in other words, and more briefly, as a real *sine qua non* antecedent or co-existent of its con-

ditionate. And this definition we shall find fully confirmed by facts which will be brought to light in future analysis. But a Cause is conceived as something much more than this. It is conceived as whatever makes, produces, or effects something, from itself and by some inherent attribute or power of its own, whether original or imparted; thus accounting not only for the existence or occurrence, but also for the quality or nature of the effects produced. "Cause," writes a high modern authority on these matters, "Cause, in the strict acceptation of the word, is a principiant which essentially and positively communicates being to another entity, or which produces an existing essence distinct from its own." [1]

Now it is just in this way, or as a producer of this sort, that common sense conceives the body when unified with its consciousness. And why? Because the feelings of pain or pleasure, of aversion or desire, the action which accompanies them, the sense of effort which both involve, and the results which correspond to them, together form an unity which, from the fact of correspondence between its parts, seems to be a self-explanatory whole. The Subject's bodily movements whatever they may be, whether internal or *ad extra*, which lead to obtaining what he desires, or avoiding what he dislikes, will be perceived as constituting a single unity with his desires and aversions themselves, and with the sense or consciousness of effort or action, which those desires, aversions, and movements include. Until, then, he is compelled to analyse, he will

[1] *The Metaphysics of the School*, by Thomas Harper, S.J. Book V., Chap. I., Article 2 (Vol. II., p. 153). Macmillan, 1881.

treat this experience of himself and his own action as ultimate, and make it the type of all real explanation of actions and events. In other words, he derives the idea of a Cause from his incomplete and unanalysed experience of himself in action.

We have seen in a former Chapter, that sense of effort and consciousness of action (so called) give no perception of a real effort or a real action, by the use of which terms we are accustomed to describe them as feelings or states of consciousness. Nevertheless, owing to the unanalysed unity described in the foregoing paragraph, the sense of effort, which is one ingredient in it, will seem to be an immediate sense or perception of the whole action from beginning to end. The whole action of the Subject will thus seem capable of being accounted for by the inherent nature of the Subject itself. The body, unified with its consciousness, will seem to be actuated by feeling or thought, by desire or aversion, and to have all its motives, means, and ends, within itself. In other words, it will appear to be immediately and intuitively perceived as a real, originating, and conscious agent.

The seeds of great embarrassment for future thought are thus sown, both in respect of the conception of cause, and in respect of the dual nature of the Subject, introduced thereby. I need not dwell on the perplexities attaching to the conception of cause. But a word or two must be said on the conception of the Subject, as a cause possessing a dual nature. The real facts are, as we have seen, that consciousness, in the narrower sense of an existent series of representations, is

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perceived as located in the body, which is one of its objects thought of, and which differs from it in being material. But common sense, which does not analyse as it goes, and is therefore unaware of the real facts as given by analysis, takes this duality as a single conscious agent, whose nature is not susceptible of further explanation. Now as time goes on and knowledge increases, the essential difference between the two natures inevitably discloses itself. Nevertheless this discovery does not lead at once, in first dawning upon the mind, to abandoning the idea of the Subject being a cause. For at first there is no other theoretic conception available for interpreting the facts. It is therefore retained, and a refinement is introduced. The two natures are conceived as two causes, body and soul, one to actuate and explain the physical, the other the conscious, phenomena presented by the Subject.

As experiences multiply and new differences are disclosed, recourse is had again and again to the same device. A vital soul is imagined as the cause of the phenomena of life; an intellectual soul, or mind, as the cause of the phenomena of thought; a will of volition; a reason of imaginative or idealising acts of reasoning; a spirit of religious aspiration; an Ego of self-consciousness. And similar ideas are by no means universally abandoned by psychologists, even at the present day. Yet not one of these supposed causes can be represented in a positive conception. They are one and all described as the (otherwise unknown) *that which* causes, supports, or actuates, the phenomena ascribed to them. Many if not most

psychologists seem to prefer assuming an inconceivable fiction, to the trouble of discovering a real explanation.

I would not, however, be understood to assert, that there are no real conditions which are not material, or that biological organisms contain nothing which fills the place of a supposed immaterial agent. What I do mean to maintain is, that facts of this kind, like all others which are not immediate data, require distinct proof, containing, and indeed beginning with, some positive and intelligible conception of the agent or agency hypothetically proposed; and moreover, that, when the so-called conception of immaterial agency is derived by way of tradition and refinement from the original common-sense conception of Cause, the prolonged vitality of that conception is no proof of its being true. It is notorious, that the conception of a transcendental and immaterial Self is treated by many psychologists as an indubitable intuition, notwithstanding that its apparent certainty may really be due to a very different source.

I need hardly stay to remark, how completely what we know of the early periods of life, both in individuals and in the race, harmonises with the account I have here given of the common-sense mode of interpreting the fact of the conjunction of consciousness with the body of the conscious being. Instead of treating consciousness as the conditionate of the body acting concurrently with its environment, we have seen that common sense treats consciousness and the body together as a single thing which is an originating cause of

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actions, first in itself and then in other bodies. At first, any individual who took this view of the matter would naturally judge other bodies by analogy with his own, that is, would judge them to possess consciousness and to be actuated by motives like his own, in various degrees, according as their figures or motions resembled his own more or less nearly. And the farther we should go back into the historical past, the more numerous would be the kinds of objects to which we should find consciousness and conscious motives attributed. I believe that this is just what anthropologists find. The tendency to personification is originally universal.

But I think it indispensable to notice the hopelessness of arriving at any real explanation on this track, I mean on the basis of taking any of those refinements on the idea of a Cause of conscious action as an explanation of it. It is hopeless because the proposed explanation merely repeats again, in another shape and as it were behind the scenes, the fact to be explained. We are familiar with the facts, as common-sense experiences, that the concrete man acts from feelings of pleasure and pain, though often without recognising them as motives, and also that he often acts from those feelings, or from feelings of desire and aversion, as motives of which he is conscious. These are the facts to be explained, the question being, What is it that really takes place in such actions? It is no explanation to say, that there is a man within the man, an Ego or Self, which acts in the same way behind the scenes and manifests his nature in the overt or phenomenal action which exhibits the

same characteristics. Such explanations are well typified by the futile account sometimes given of the phenomena of external vision, by supposing an imaginary eye seeing the retinal impression on the real eye; and, it may be added, are well caricatured by the story of the rustic who, on first seeing a traction engine on the road, thought that it must be worked by a horse concealed inside it.

The only real explanation must be by way of analysis in the first instance, not supposed repetition, of the process to be accounted for; analysis of the phenomena to be explained into other phenomena which are different in kind from them. The processes, which in common sense appear to be due to the action of causes, must in psychology be analysed into processes, which consist of conditionates depending on the interaction of real conditions. To go the smallest fraction of the way on this latter line is more than getting to the journey's end on the former; for the progress made on the one is real though small, while that made on the other, though great, is illusory.

To this I would only add, that, while the hypothesis of an immaterial conscious cause, as for instance in Berkeleyan Idealism, seems to supply an ultimate (though in reality illusory) explanation of the material world, from the mere fact of its offering no positive content which can be analysed, and thus for a moment satisfies the mind by its apparent finality, no corresponding explanation of the material world on the lines of real conditioning has ever yet been given, and certainly none is attempted in this Chapter. I mean that we

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have no positive conception as to how solid material objects come in the first instance to exist as we perceive them to exist, that is, as coherent in themselves and interacting with one another, as real objects thought of, separate from and independent of the objective thoughts in which our knowledge of them consists. All that has been here shown is, out of what elements is formed, in the first instance, that conception of real condition, by which we interpret their cohesion and interaction as perceptual facts.

And moreover, if it is not here attempted to explain, and even if it should never be possible to explain, how that which we call conscious action on the part of the Subject takes place, this would no more imply a denial that the action, which is so described, is a reality though unexplained, than our inability to explain the cohesion and interaction of material objects implies that these objects and their interaction are unreal as facts. To reject the common-sense view of them, when it is offered as an explanatory hypothesis, is not to reject that view when given as a description of them simply as facts. They are not 'explained away' as facts, because their description as facts is rejected as a description which is an explanation as well. The common-sense form of experience may be good as common-sense, but bad as science or philosophy. As a statement of the *explicanda* it may be good, and as a statement of their *explicatio* bad. And in fact to suppose otherwise would of itself imply, that science and philosophy were alike superfluous.

§ 4. The Order of Knowledge and the Order of Existence.

§ 4. Returning from this somewhat anticipatory digression to the cardinal moment of location, we

have next to enquire how the percipient, from that moment onwards, must logically conceive the difference between his consciousness, which for him will at first consist of pure representations seated in his body, and the world of real objects in space, of which his body is the central object; that is to say, between two series or orders of phenomena, sharply contrasted with each other, one of which is localised in the body, while the other, including the body, constitutes the real material world. And here again we must keep in view the same distinction as before, that is to say, must consider how the percipient would experience the two orders of phenomena without employing philosophical analysis, of which at this moment he cannot be supposed capable. To ascertain the necessary and permanent contribution, made to our knowledge of existence in its full sense, by the experience which is immediately determined by the moment of location (a moment only analytically discerned), is in fact the purpose of the present Section.

Now in the first place it is evident, that this experience as a whole, and also each of the two orders of phenomena which compose it, taken severally, will have the form of a panorama, the central object in each order being the same, and space in three dimensions being common to both, that is to say, both to the real world and to the representational picture which is localised in that central object. When the child, to recur to our former instance, has the representation of his absent dog, and misses the presentation of it, he is plainly representing a world of three-dimensional space, the same on the whole as that which through

presentation he perceives as real. His representations are to him copies or duplicates of real objects, only with the peculiarity of being, not only fainter and less vivid in sense-intensity, but also liable to falsity or mistake in comparison with the real world, parts of which they mirror. Instances of whole trains of such pure representations are supplied by dreams.

We have accordingly in this experience the clearly perceived distinction of two orders of phenomena, both alike having panoramic form, the form of space seen from a centre, and both alike included in one and the same total spatial panorama; but one of which (in waking states, but by no means always so in dreams) contains only fainter duplicates of the real objects of the other, duplicates which may moreover be true or false according as the expectations which they raise are proved or disproved by their harmonising, or not, with presentations belonging to the other. The two orders are thus conceived, one as an order of reality or real existence, the other as an order of knowledge which has alike its ground and its test of truth in objects which the opposite order contains. The changes which take place in the one are motions or events in real objects, those which take place in the other are changes in ideas or thoughts, which represent or seem to represent real objects and their changes. The real objects belonging to the one order are objects thought of by the representations belonging to the other, which are objective thoughts. Both orders, and both kinds of objects, are, as a fact, objective to the percipient in the experience which we are now

considering, because his consciousness does as a fact contain reflective perception, to which his own thoughts, as well as the objects which they seem to mirror, are objective. Indeed his becoming aware of the distinction between the two kinds of objects, as well as of the two orders of knowledge and of existence, to which they severally belong, is the very experience which follows necessarily and at once upon his first perceiving that difference between pure representation and presentation, which originally compels his perception of location.

But what he is not aware of in that experience is, that the doubled or rather halved world, as he now perceives it, is an experience due and belonging to reflective perception; and consequently that the real half, the real panorama of material things, consists as completely of his own perceptions as the other half does, the purely representational panorama. He does not yet recognise that his own body is as fully, and in the same sense, the seat of presentative perceptions of material things, and of itself among them, as it is of pure representations of itself and those things. Hence the terms by which we describe his experience are not his but ours. Seeing it by the aid of philosophical analysis, we can now describe his experience, though he could not, as an experience of the two orders, one of knowledge the other of existence, and of the two kinds of phenomena, objective thoughts and objects thought of, since we know that both alike are objectified in reflective perception.

Towards this knowledge, described as we can now describe it, our supposed percipient has made

one important step, and as yet one only. He has separated his representational knowledge from the real things which it represents. This representational knowledge is the only mode of consciousness which he at present recognises as consciousness at all. Consequently he has much further experience to go through, before he can distinguish the two orders (of knowledge and of existence) without separating them, that is, by reference to what they have in common, as alike objects of reflective perception, or experience generally; or in simpler terms, before he can recognise that presentative perception is a mode of consciousness, in the same sense as representation is. Until this has been done, he will be in constant danger of confusing the two orders, notwithstanding the separation which he has made between presentative and representative perception, in the moment of location. But that moment is decisive, and will compel him to go on to the acquisition of further experience on the lines which it has determined. It is a moment analytically distinguished; a moment one in kind, not numerically; a moment which, with its attendant phenomena, occurs repeatedly, but always with the same essential features. The actual acquisition of the experience which it compels, both in individuals and in the race, is therefore a work of time. It is a long and laborious process to arrive at the clear distinction between the two orders, and the two kinds of phenomena; and even when the distinction has been reached, the mastery and application of it are an occupation for the whole of life. To learn not to attribute our own objective thoughts to real

objects thought of, but to let the former be moulded by new experiences which are genetically determined by the latter, may be called in some sense a work for the whole course both of science and philosophy. And in earlier stages of the history of mankind, represented by uncivilised races at the present day, and more or less by the uneducated classes among ourselves, the imagination that what happens in our objective thoughts happens also in the objects thought of, which are held to be their counterparts, is the parent of almost ineradicable superstitions.

A broad distinction must therefore be drawn between the establishment of the double experience in question, by some decisive instances, as a general idea governing future cases, and perfect familiarity or complete mastery of the idea, in actual application to any and all cases which may arise. And one great epoch, as we have seen, in this attainment of perfect familiarity with the idea consists in attaining the perception, that our objective thoughts, or order of knowledge, belong to the Subject, and not to the real world outside the Subject; that they consist of states and processes of the Subject's consciousness only, and do not affect the real world, except so far as some real reaction on the part of the Subject may take place in connection with them. In attaining this perception, the experience and conception of real conditions are involved; and from these we are making abstraction in the present Chapter, though they are necessarily combined with its phenomena in concrete history. We shall find in the following Chapter, that the addition of this element gives a wholly new character

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to the real objects which in the present Chapter we speak of only as objects thought of.

A further permanent contribution to our total conception of existence is necessarily made by the present experience, from the character at once physical and spatial which it reveals in real objects thought of, and which partially affects the objective thoughts which represent them. All real objects thought of, including the Subject, are to our percipient, in this experience, physical or material, and spatially solid or three-dimensional. They are physical substances. The objective thoughts also, which represent them, though not themselves physically substantial, are perceived as seated in a physically substantial Subject, through which they seem to pass, or in which they seem to arise and vanish, in sequences which belong to the genesis of knowledge, and contribute to constitute the order of knowledge, in the strict sense of the term, as distinguished from that of existence. The perception of the constant relation between the substantial Subject (which is the centre of the spatial panorama of the real world) and the unsubstantial succession of objective thoughts, which arise and pass away within it, supplies us for the first time with the imagery which we use in representing consciousness as a stream ; that is to say, in representing that which, when regarded merely as an existent, abstracting from its spatial content, is a mode of change in time only, under the image of a mode of motion, which is change in time and space together.

It is, however, only the imagery used in the metaphor of a stream which is thus supplied. We

have still to enquire how we come by that conception of consciousness as an existent, in describing which that metaphor is used. I mean, in other words, how we are led to draw the distinction between consciousness as an existent in time only and the order of knowledge, or panorama of objective thought, from which at present it has not been distinguished by our percipient. Both panoramas alike, both that of real existence and that of pure representation, are spatial, and have the Subject's body as their common centre. Motions visible and tangible are as much represented and thought of in the one, as they are immediately and presentatively perceived in the other. The full and distinct perception of consciousness as an existent arises only when we distinguish its character as a succession of changes in time alone from its spatial or panoramic character, the changes in which are motions, that is, are perceived changes in time and space together, and belong to its content or whatness, or in other words, to what it is as a knowing of objects thought of, in contradistinction from its order of genesis or existence, as a sequence of states of consciousness simple or complex.

Until this further distinction is drawn, in addition to that between the two panoramas, real and representational, our percipient will probably regard his changing consciousness as a real stream or succession of changes in time and space together, undistinguished from his panorama of objective thought or order of knowledge as a whole, notwithstanding its location in his own body,—a view in which he cannot possibly rest as final. The foundation for the distinct perception of conscious-

ness as an existent, in contrast with it as a knowledge, is nevertheless inevitably laid in the experience involved in the moment of location. For by locating his consciousness in his body, what our percipient really does is to identify each successive present moment, which is always a moment of actual experience or reflective perception, with some one of the successive moments of his presentatively perceiving his own body. In doing this he is abstracting from the contents of his changing perceptions as indifferent, and attending only to their successive synchronisation with the one comparatively unchanging experience of himself; and thus he is virtually distinguishing between the bare moment or act of perceiving and the varying content or object from time to time perceived.

Now so soon as he becomes aware of this distinction, or rather so soon as he consciously observes his own perception, he will necessarily and in consequence of it take a further step than that of the bare perception of location; he will now regard his body as the *locus* in space, in which all these successive present moments both arise and vanish, or, to use the familiar metaphor, cross the threshold of consciousness, and then disappear, for a time at least, into unconsciousness again. And if we farther suppose him to have by that time attained the conception of real conditioning, he will then also regard his body as the *locus* which contains the proximate real conditions, not only of the arising and vanishing of those present moments of his consciousness, but also of their apparent re-emergence and reproduction, after they have once

vanished and been forgotten. His body will then seem to be the real agent or Subject of his consciousness, and that in the two-fold character of being a producer, or part-produeer, of new present states of conseiousness, and a storehouse and reproducer of past. What he may then eall metaphorically the stream of time will at first, very probably, seem to him to have a double content, one below and one above the threshold of consciousness; since every present moment of conseiousness will seem to have been prepared for and led up to by ehanges within his body, before it actually oceurs as an event in eonseiousness; and farther, when it apparently occurs again in recollection, it will seem to have had its re-emergence also prepared for and led up to by similar changes. The whole series of changes in his eonseiousness will then seem to be attached to one and the same permanent seat, the Subject, and, as distinguished from the physieal ehanges in the Subject, to be changes in time alone. The space relations and the imagery, which may happen to be its content, will appear as circumstances non-essential to its nature, considered simply as an existent consciousness.

The present experience, therefore, does more than merely supply a convenient imagery, under whieh to conceive the time-stream of consciousness. The perception of the representational order of knowledge, as distinet from the real order of material existence, is the first step towards the discrimination of those process-contents of consciousness whieh oeeupy time only from those which occupy time and space together, with which

in the historically early stages of experience they are indiscriminately mingled. Historically no doubt the earliest experience consists of time and space perceptions, not of time perceptions separately from space, as we took them in the first steps of the foregoing analysis. The stages in its historical development may perhaps be stated somewhat as follows. Out of time and space perceptions, taken together, we arrive, by processes which are at once discriminating and constructive, at the perception of an external world. In the next place, out of this perception, we reach that of the location of representations in the body of the Subject. Thirdly, out of this latter perception, we discover the immaterial character of objective thoughts and the knowledge which they convey, and thereby take the first but decisive step towards the conception of consciousness as a series of changes occupying time only, though localised in space by the circumstance of its having its local seat in the Subject's body, which is that conception of consciousness which most readily lends itself to the apprehension of it simply as an existent, in abstraction from its character as a knowledge. And concomitantly with all these stages, there goes on the development of the percipient's experience of pleasures and pains, appetites, desires, emotions, thoughts, volitions, which are the material of what is commonly known as the life of conscious feeling and conation, as distinguished from cognition. By perceptions of all these kinds the object-matter is supplied, and in that sense the first foundation laid, for the physical sciences on the one hand, and for psychology on the other, so soon as the completing

conception of real condition enters, from the consideration of which we have hitherto designedly abstracted.

The deepest and most essential root of all positive science is in the experience of a spatial, external, and material world; the corresponding root of philosophy is in the experience which occupies time only. An external world is the primary datum of the one; consciousness in its lowest terms, but therefore also in its utmost logical extension, is the primary datum of the other. The experience with which we have been busied in the present Chapter, dependent on the moment of location, is that form of it which supplies the object-matter of physical and psychological science; and this experience comes to us in two shapes, one being the experience of a material world of objects thought of, and the other that of an immaterial world of objective thoughts, constituting an order of knowledge, belonging to a Subject who himself is one of the objects of the material world.

But so far as our examination has gone hitherto, the distinction which most markedly differentiates the object-matter of psychology, as a positive science, from that of philosophy, has not been drawn or perceived by our supposed experient. To him, the existent character of his experience is as yet undiscriminated from its character as a knowing. To him, the objective thoughts, which constitute the order of knowledge, and are what psychologists call the subjective aspect of reality, are objective existents of a peculiar, that is, an immaterial, unsubstantial, fleeting, and therefore comparatively unreal kind, whose unexplained accident it is to be partial mirrors

or imperfect copies of substantial realities. To him similarly, the material objects thought of, which together constitute the psychologist's objective aspect, and are reality itself, are real existents simply, the attributes of which have not yet been perceived to belong wholly and solely, not to themselves, but to what he now conceives as the comparatively unreal order of objective thoughts. In short, as noted at the outset of this Chapter, the philosophical distinction between the subjective and objective aspects of experience, as distinguished from the psychological one, has not yet been attained by our supposed percipient, because he has not as yet brought the whole of consciousness under the conception of an existent reality.

The nature of this distinction and the mode in which it is acquired will be more fully seen in the following chapter (VIII., § 5), when we come to consider the questions which are more immediately raised by the experience which we have now been examining, and which are necessarily raised by it in the percipient who is its Subject. These questions are,—What and how much he knows of the content of the real objects of his material world, and of the relations and changes of relation between them? What, and how much, for instance, does he know of the structure and endowments of his body here, a tree (let us say) out there, and of those relations and changes of relation between them, which are attended by his perceiving the tree? What and how much of this real content can he translate into definite objective thought or idea, with the perception that it represents it truly? It is clear that his objective thought or idea, at

any given time, is far from adequate to, or exhaustive of, the whole content. Vast portions of it are unknown. The more nearly he can approach to translating the whole content of objects thought of, and of their real relations, into true objective thoughts, and their perceptual and logical relations, the completer in point of detail will be his panorama of existence in time and space, and the less will be left blank in that total panorama which includes all real existence, whether its content is definitely known or not. These and similar questions, which concern the origin and nature of error in the representation of reality, the limits of knowledge, and the possibility of discriminating and ascertaining truth, cannot be dealt with in the present Chapter.

The result, then, of our whole analysis of experience, so far as it has gone at present, may be briefly stated as follows. In the first place, the universe or totality of experience, as it presents itself to a percipient who has reached what we have called 'the moment of location,' is thought of by him as made up of two opposite, and for the most part locally separate, aspects, the picture or panorama of knowledge on the one side, and on the other the panoramic world of real existents pictured by it; among which those existents which are not definitely known, but are surmised or inferred as real, in the sense that in themselves they are presentative perceptions, correspond to possibilities, in the picture, of a knowledge which has not as yet been acquired. And, in the next place, these two halves or aspects of our percipient's universe,—its subjective and objective aspects in estimation of psychology,—have been shown to

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constitute together one half or aspect of the universe in the estimation of philosophy, namely, its objective aspect, the entire content of consciousness as already objectified in reflective perception. They constitute, therefore, two great classes of existents, (1) material things, with the relations and changes of relation between them, and (2) states and processes of consciousness, standing in a twofold connection with material things, namely, their connection with the Subject and their connection with the material world outside it. The two great classes of existents, thus roughly described, together make up the existent aspect of experience in the view of philosophy; and to philosophy both alike are objects thought of, inasmuch as both alike consist of experiences which have been already objectified in reflective perception, no matter in how many points they may differ from, or even stand in direct contrast with, each other. But this is not the sense in which the terms *object thought of*, and the *world of objects thought of*, could be used by a percipient at the stage described in the present Chapter. From his point of view the term *objects thought of* applies only to the world of material existents, as represented by and opposed to the comparatively unreal existents, which, in philosophy, we can designate as *objective thoughts*.

§ 5. Inferred Memory.

§ 5. It will be remembered that, in the Section on *Memory Proper* (Chap. III., § 3), we postponed the consideration of a class of cases, universally and properly regarded as memories, until further light should have been thrown on the real conditioning of consciousness. These cases were those in which one or more several intervals of total

unconsciousness intervene, between the past scene or event said to be remembered and the present moment of consciousness said to be the remembrance of it; as for instance, in remembering to-day the events of yesterday after a sound night's sleep, or in remembering in later life scenes and events of childhood. The present is perhaps the most convenient place for recurring to this question, inasmuch as we now possess, in what I have called the moment of location, the first and decisive step toward the analysis of these cases, and their justification as true cases of memory. I say the first step, because it is only when completed by the perception of the body, as not only the seat but also as the proximate real condition or Subject of consciousness, that the explanation which it affords is adequate to the phenomena; and for this second part, it must still be held, as it were, suspended upon the analysis to be given in the following Chapter.

In the common-sense form of experience these cases are not classed apart from other cases of memory; the intervals of total unconsciousness between the experiences remembering and remembered being regarded as offering no difficulty to persons possessed of a supposed 'faculty' of memory, a faculty given them for this very purpose, namely, for remembering anything that they have at any time experienced, though confessedly subject to limitations in respect both of vigour and of accuracy. To take the simplest possible case, in ordinary thinking we set down an event which happened to us yesterday as an event then real now remembered, and treat it, without question asked,

as a case of memory, the truth of which is immediately evident. But when we ask, in philosophy, how such a proceeding is possible, or how its apparent result can be justified as true, seeing that, between the thing said to be remembered and the present moment said to be the remembrance of it, a total break in consciousness has in fact intervened, an interval of which we can, strictly speaking, remember but the end, namely, the moment of waking,—then the continuity of the consciousness called the remembrance with the consciousness said to be remembered, a continuity which consciousness has in its character of a knowing, seems to be inconsistent with the fact, to which the present, or remembering, moment of consciousness itself may partly witness, that a total break has occurred between the supposed former and latter states of the consciousness in its character of an existent. For, supposing such a break in existent consciousness has actually occurred, the idea becomes at least possible, if not imperative, that what we call a present memory of a formerly experienced fact is really a present fiction, imagined as having been so experienced.

In some quarters, an objection might possibly be raised against the necessity of seeking any explanation at all of such cases of memory, on the ground, first, that the intervals of unconsciousness, in which the supposed difficulty of accounting for them consists, are merely incidents of the common-sense form of experience, not essential to consciousness itself, and secondly, that the supposed intervals themselves are and can be perceived only when a panoramic view of experience, as

embracing, that is preceding and following them, has first been attained, a panorama of objective thought, continuous as a knowing, which is necessary to their perception, since they are only perceived, if perceived at all, as blank intervals within it. The panorama, it is objected, is presupposed by the intervals, not the intervals by the panorama.

But the reply to this objection is, that actual consciousness is never more than the presentational or representational content of a present moment, and that, this being so, we can actually and in the strictest sense remember, in certain present moments of waking consciousness, the arising or beginning of a continuous content of consciousness, from or after a period of unconsciousness, or, as said above, the end of a period of unconsciousness, which we call sleep. This fact is prior and contributory to the perception of an interval of unconsciousness, represented as an interval in the panorama of objective thought, that is, a period which has been preceded (as well as followed) by a period of consciousness. The break in existent consciousness is thus a positive fact of experience, quite independently of its being afterwards thought of as an interval or blank in consciousness, which has itself had a beginning, as well as an end. Some explanation of the reality of memory, in cases where the thing remembered is separated from the remembrance of it by a real interval or intervals of unconsciousness, is therefore required, if the phenomena are to be brought into harmony with themselves, and the supposed memory of scenes

and events, which are cut off by a break in existent consciousness from those moments of existent consciousness which are said to be the remembrance of them, shown to be really memory in the strict sense of the term.

The whole problem thus proposed falls of itself into two distinct parts, or rather stages, since in one of them the other is pre-supposed. The first problem is simply this, How we come to represent an experience as having been actually experienced in the past, when, even supposing it was so, it has been severed from the present moment representing it, by an interval of total unconsciousness? Or, in other words, How do we come to frame the idea of there being a memory of the past in the present, when the past is separated from the present by a break in the real continuity of consciousness between them, a break which seems to imply that two consciousnesses really exist in place of one, and consequently to sever the two experiences belonging to them, as completely as if they belonged to two separate persons?

The second problem, which arises only in case an answer has been found for the first, relates to the testing of the experiences said to be remembered, or rather of the content of the remembrances of them; and that in two respects, (1) whether they are true in point of fact, however they come to be represented, and (2) whether they are really memories, that is, have occurred twice in the history of one and the same consciousness, once as new and once as remembered experiences, or, in more ordinary language, have been actually ex-

perienced by the same person who supposes himself to remember them.

One can readily imagine some of the solutions that might be offered of these problems. One school of thought would probably hold, that there is in every man an immaterial entity, gifted with a special faculty of perceiving, as a real experience in the past, that and that only which has really been experienced in the past, this faculty being named Memory. Another school might maintain, that, since the past is known in the present solely by representation, and the representation of a past is the logical identification of a past with a present, the nature of logical thought both assures the continuity of consciousness as a knowing, and renders superfluous all enquiry into its continuity as an existent, save only perchance in the character of a psychological curiosity, or noteworthy specimen of the "*Ohnmacht der Natur.*" But neither of these solutions, supposing them offered, could be satisfactory to those who take their stand upon experience alone. Not the first, because its hypothesis is empty of all content, save what it derives from the phenomena to be accounted for. Not the second, because it assumes, in the teeth of experience, that logical thought is the bestower of reality on the content which it deals with.

But to return. In my own opinion, the first of the two problems stated above receives its only sufficient answer from what I have called the moment of location. It is simple matter of fact, as already remarked, that representations of all kinds, and in groups or series more or less intelligibly connected with each other, are perpetually arising in con-

sciousness, quite apart from the question of their real genesis, or how they are determined to arise. Out of these, our supposed percipient will most readily set down as (what we call) real memories those which are representations, not of scenes or events only, but also of the percipient's own body as their central object. In these cases, the percipient's own body is the one object common to the content of the two states, present and past, the representing and the represented, and thus forms a link of unity connecting them. In this way, therefore, before he has framed the full notion of himself as a percipient or Subject, (a notion to which we are supposing him to be as yet only on the way), he will have exercised the power of remembering, in present moments of consciousness, things which are separated from those present moments by intervals of total unconsciousness; and of remembering them truly, if, as we may presume, some of his remembrances should be found to bear the test of subsequent verification by presentations. He will represent the presence of that, which he afterwards learns to call *himself*, among objects, the past reality of which can also be proved by a similar subsequent presentative verification. In short he will represent as past experiences of his own those represented scenes and events, of which he also represents himself as a witness and partaker, as distinguished from those in which no such representation of himself is included. The truth of these remembrances is a different question.

For plainly the foregoing explanation goes only so far as to show the possibility of the representations in question being either true to fact, or real

as memories. It only shows how they come to appear as representations of things which have really happened to the percipient. We have now to turn to the second branch of the whole problem; and first as to the first and most general division of it, namely, testing the truth to fact of the supposed memories. It is obvious, that the mere representation of the percipient having been present, in or along with scenes or events represented, is no test whatever of the truth to fact of the representation as a whole. A vivid dream, for instance, will cause us, on waking, to represent over again its scenes and events, including ourselves as actors in them, without giving us thereby the least reason to suppose them real. At the same time, the very fact that such dreams are frequently by children, and by adults in the infancy of civilisation, taken to represent realities, shows that a test whereby to discriminate true representations from false is absolutely needed.

Now such a test, applicable to all representations of material objects alike, is only to be found in the fact, yes or no, that expectations which are raised by such representations are fulfilled or not fulfilled by subsequent presentative experiences, or by strict deductions from them. No other test exists. In applying it, indeed, a principle is appealed to, which will be mentioned presently; but as to the test itself, presentation is final. Presentative and representative perception are, for this purpose, an exhaustive division of consciousness, the one type, the other antitype, the one possessing the highest conceivable degree of certainty, the other declining from this standard, through all possible degrees of

uncertainty, probability, and error. Testing the truth to fact of representations of every kind, and among them of those which have the appearance of memories, is therefore a very different thing from merely having the representations, be they of what kind they may. And it is, of course, not a procedure which can be attributed as yet to our supposed percipient, except in a very tentative and rudimentary way.

The second division of the second branch of our problem concerns the ascertainment of the fact, yes or no, whether representations, of the kind which we are now considering, are or are not to be classed as memories proper, allowance being made for such errors and imperfections in their record, as would naturally be incident to them, supposing they were so. This may be regarded as a special case falling under the more general testing of the first division, and subject to its canon of verification. And here it is, that the conception of the percipient's body being the proximate real condition of his consciousness comes in, or in other words, the conception of its being a Subject in the strict sense. Supposing this fact to have been ascertained, which is the point reserved for the following Chapter, we should then have only to show, that the body of the percipient was a permanent real existent during those intervals of unconsciousness which constitute the difficulty of the whole present problem, and the character of being memories proper would thereby be established, though of course for those representations only, which satisfied the test of verification under the first division, allowance being made, as above

noticed, for naturally incident errors and imperfections of the record.

We may conclude, then, that when once our supposed percipient comes to perceive himself as the Subject of his perceptions generally, that is, of his own consciousness, he has, in that perception, the legitimate means of accounting for, and virtually filling up, those breaks or intervals of unconsciousness, which undoubtedly occur in the continuity of his consciousness, considered as a real though immaterial existent. And thus only can he be said strictly to remember scenes or events in which he has taken part from childhood onwards, up to any given present moment of remembrance. The fact, however, that these remembrances are memories in the strict and proper sense of the term, is a fact which is established only by the aid of inference. The memories occur without conscious mediation, but it is an inferred fact that they are really memories.

It remains to be noticed, that the method of verifying representations by subsequently observed facts of presentation has a far wider applicability than merely to show, that a percipient's supposed memories of events in his past life are really memories, that is, representations of scenes and events which he once experienced in presentation. It extends to testing the truth of any representation whatever, whether the representation tested is tested only in respect of its own nature, as in cases of memory simply, or is one link among others in a chain of evidence, terminating in the knowledge of some other more remote, more complex, or otherwise more obscure reality, or again is the

representation of a reality which is only to be established in knowledge by means of a long chain of evidence. The reason of this is, that the method in question depends for its validity upon that part of the total Order of Nature, or Real Conditioning, which at once connects representations with presentations in conscious beings, and connects presentations, as modes of existent consciousness, with the real conditions, both in the Subject and in real objects external to it, which immediately give rise to them. The discovery of the Order of Real Conditioning in Nature is thus the justification, at once necessary and sufficient, for our relying upon presentations as the test of truth in representations generally.

Supposing then, as before, that the analysis of the following Chapter should result in establishing the fact, that a percipient's consciousness is directly conditioned on his body as its permanently existing Subject, then this method of verification at once becomes applicable to all his pure representations, in respect of their truth or falsity, whether they are really memories of his own past experience or not. It extends in fact over the whole field or panorama of his objective thought. For, so far as the reality of the experience represented is concerned, it is indifferent whether the fact represented has been presentatively experienced by the Subject now representing it, or by another, or by no one, because in all cases alike the actual separation or hiatus between the fact represented and its representation is equally complete, equally total,—the experiencing consciousness being taken in its existent character.

As applied to memory, the principle of the method in its simplicity is, that, where the connection between a representation and the experience represented has been actually broken by an interval of unconsciousness, the connection can nevertheless be really maintained by a train of the continuously acting real conditions of the consciousness, which accounts at once for the actual hiatus in the existence of the consciousness, and for the congruity in the content of its several parts, the representing and the represented, one on this side of the hiatus, and the other on that. And this principle is applicable to all cases of intermitted consciousness alike, provided that the train of real conditions which connect the representation with the facts represented can be securely established. It is on this principle that the admissibility of the testimony of other persons, to facts not within the personal knowledge of the representing Subject, ultimately rests. Such testimony moreover may be either oral or documentary, or it may comprise both. There are thus no limits to the applicability of the principle, save those of experience possible to actual human Subjects.

The range covered by the principle in question is therefore enormous. But if we go farther, and consider what is really involved in the meaning of the term *documentary* just used, even this range may be enlarged. For then we shall be carried back to facts beyond anything which could ever have formed part of actual human experience, that is, to facts which are themselves the objects of representations only, and are thought of as real only by thinking of them as facts which would

have been experienced by human beings, if (*per impossibile*) any human beings could have existed at the time when they occurred. I mean facts deducible from such evidence, for instance, as what has been well called the 'record of the rocks' in Geology, or from the laws of composition and transmission of light in Astronomy. In cases of this sort the train of real conditions, which we began by treating as interposed between two human experiences, becomes itself the sole object thought of, and certain parts of it, which are within actual human experience, become evidence for other parts of it, which existed when no human eye could have existed to witness them. By this line of thought the application of the principle in question may be extended so as to embrace the whole Course of Nature as the object thought of, thus extending over both the panoramas, subjective and objective, and extending over them inevitably, when once it has been admitted as necessarily applicable to the simplest case of memory proper in which an intermission of existent consciousness has actually occurred;—and all this without exceeding the limits of what we have called a single empirical present moment of consciousness, but on the contrary, by bringing the whole or any part of the panorama within those limits, as the object thought of in that present moment.

It will of course be understood, that I speak of it as a principle only. To show that particular cases can be brought under it is a very different task. Here the difficulty would be to establish, as a particular fact, the continuity of some train of real conditioning, which should connect the par-

ticular experience to be accepted as fact with facts already accepted as known, and through these with the representation of it, thereby justifying the latter as true. Questions of this sort concern, not the validity of the nature of the connection, but the amount and kind of evidence to be required for establishing its actual existence in each case. No one dreams of putting all representations on the same footing as to evidence for or against them, simply because their being pure representations does not disqualify them from being regarded as true. It is the sceptical doubt of pure representations as capable of being known to be true, when they refer to experiences separated from them by intervals of unconsciousness, which is really set at rest by establishing, in the first and simplest cases, the principle of verifying them by subsequent presentative perceptions on the part of one and the same Subject. These simplest cases are decisive as to the validity of the principle, however wide its range of applicability may afterwards be found. And in these simplest cases, the fact (supposing it established), that one and the same Subject is the experiencer of the representations questioned and of the subsequent presentations which are said to verify them, precludes the possibility of accounting for the nature and existence of the representations questioned, except on the hypothesis that they are really memories, that is to say, are representations of something which has been previously presentatively experienced by the same Subject.

§ 6. A third sense of *Reality*.

§ 6. One thing remains to be noticed before closing the present Chapter, a point moreover to

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which I shall again have occasion to recur, namely, that the philosophical conception of the existent world now indicated supplies us with a third sense of the terms *reality*, *existence*, *thatness*, in addition to the two noted at the close of Chapter III. I mean that these terms, when applied to the objective thoughts and objects thought of, which together compose the experience which we have been examining in the present Chapter, obviously mean more than when they are used to express (1) *percipi*, or presence in consciousness generally, or (2) the occupying a definite place in a context of perceptions in the time-stream of experience. They imply, besides this, a place and function in an external world, a world occupying time and space together, and therefore import, that the objects to which they are applied are independent of the circumstance of being perceived by a Subject, except (in the case of objective thoughts) by that Subject whose thoughts or perceptions they are. Independence of the circumstance of being perceived or not perceived by any consciousness, save that of which (in one class of cases) they are a part, is the specific meaning of these terms in this third sense of them ; and the term *Existent*, applied to any object whatever, expresses that meaning as predicable of it. Both consciousness, or objective thoughts, and matter, or objects thought of, as our supposed percipient would distinguish them, are existents in this sense, since both are taken as belonging to a world of space, and having an existence dependent indeed on other objects in that world, but independent of their being or not being themselves perceived, except (as just said) in the

case of consciousness or objective thoughts, which depend, for their existence, on the existence of the Subjects in whom they arise.

In so using the terms in question, two things must be noted, first, that we are again speaking from the philosophical point of view, and not from that of the imperfect stage of experience analysed in the present Chapter; and secondly, that, in using the terms in this third sense, we do not deny, but consciously reserve and abstract from, the admitted fact that, in speaking of anything whatever, reflective perception is involved and presupposed, to which therefore all real existence must be conceived as relative. To deny or to forget this truth would be to fall into the self-contradictory conception of an absolute existence. It is, therefore, only in conscious subordination to this general fact, that the third sense of the terms in question, which has now been pointed out, is permissible in philosophy. Nevertheless, when so taken and understood, it is part and parcel of the necessary machinery and outfit of philosophical method, affording as it does the means of harmonising the conceptions of philosophy with those of positive science.

CHAPTER VIII.

THE WORLD OF REAL CONDITIONS.

§ 1.
Full perception of *The Subject.*

§ 1. We have now to take up the long postponed enquiry, What are the essential steps or circumstances in the process whereby our supposed percipient arrives at the true perception of himself as a percipient and active being, the Subject of his own consciousness;—whereby he passes from the perception, that one mode of his consciousness, pure representation, is seated in his body, to the perception that presentations and representations alike are not only seated in his body, but are directly dependent on it;— whereby, consequently, he distinguishes his consciousness generally, including both of these modes and all that they contain (perceptions, sensations, pleasures, pains, desires, emotions, imaginations, volitions, reasonings, and so on), from the world of material objects generally, as objects not themselves consisting of consciousness, but existing independently of it, one among which, namely, his own ever present body, is the invariable and indispensable real condition, upholder, and servant, of that consciousness in its entirety.

Such are the forms which the problem assumes, as the consequence and completion of the steps already

taken in the analysis of consciousness in its entirety, as presented in the common-sense form of experience, with which we began; three statements of one and the same analytical problem, the last which remains to be solved in order to complete our general analysis of common-sense experience. The answer, which will be given by discriminating the essential steps which lead to self-perception, will therefore show in what the true perception of the Subject consists, apart from errors and superfluities which may have been mixed up with it, and particularly from that erroneous conception of it as an absolute existent, or cause, which, as we saw in the foregoing Chapter (§ 3), sprang from a partial and incomplete knowledge of the phenomena perceived. It should be remarked, that errors are naturally to be expected, and must almost inevitably have arisen, in forming an idea of the Subject, inasmuch as reasoning processes are employed in its formation, and a door thereby opened to conjecture and hypothesis, in the absence of any contemporaneous philosophical analysis of the phenomena reasoned from.

We left our supposed percipient at the point where he had perceived the location of his own pure representations in his own body, a mode or epoch of perception analytically distinguished by us, but not one at which we can possibly suppose him to remain, even for a moment, as if it were an empirically marked halting place, on the way to a full and complete perception of himself; notwithstanding that the facts belonging to it, taken in isolation, are those which support the conception of absolute existents and causal agencies. The

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real experience of our supposed percipient does not stop short at this analytically (not empirically) distinguished epoch. It is as if, in a long journey with a four-in-hand team, the near horses were changed at one stage, the off horses at the next, and so on, the four horses never being changed at once; a singular arrangement, no doubt; but so has Nature ordered the process of experience. We have, then, to see what circumstance it is, which, as a matter of actual experience to our percipient, inevitably urges him forward to the completion of his self-perception.

This circumstance, this motive power, is found in the fact, that Desire is bound up with Representation. Those representations which include desires, or have desires in them as an element, keep him restless and uneasy until they merge in, or are replaced by, presentations which satisfy the desires, as in the case of infants seeking the breast, or as in the instance supposed above, of a child desirous of again seeing and playing with a favourite dog. Desire is a state of consciousness which belongs wholly to representation, though, in the lowest instances, the representation may be extremely dim and indefinite. Still without some representation of what is wanted, be it only of a cessation of uneasiness, the feeling called desire would be wholly objectless, a feeling merely, not a feeling for anything desired, which is its *differentia* from other kinds of feeling. Again, desire is only for that which is actually, that is, presentatively, wanting and absent. True, presentation may fail to satisfy desire; but when that is the case, it is so because it satisfies the desire in

part only, or else, in satisfying it, sets up a new or a renewed desire in its place. In speaking as above of desires and representations as motives, I am using the ordinary language of common-sense thinking, and must be understood to use it subject to an analysis which has yet to be given.

There are also well known classes of cases, in which desire is directed, not to sense-presentations or to the presentation of material objects, but to something which can be experienced only in redintegrative processes. Such for instance are the desire for more vivid or more absorbing emotional feeling, the desire for more complete and accurate cognitive representation of intricate or obscure phenomena, and the desire for higher degrees of power in self-mastery and control of desire itself. But what these cases show is merely this, that sense-presentations are not the only objects which satisfy desire, though it is these only which come prominently into view in this part of the present work. They do not show, that desire does not arise solely in representation ; but only that what satisfies desire need not be a sense-presentation. It may be a feeling, perception, or thought, the arising of which, provided it be perceived as new, either in point of content or in point of vividness, is immediately conditioned upon redintegrative cerebral action, instead of being immediately conditioned upon stimulation of nerve at the periphery. This will be brought out more fully in a future Chapter. Newness of content, or of degree of vividness, in feelings or states of consciousness, is the true mark of presentation as distinguished from representation. States of consciousness like those named

above as objects of desire may, therefore, be as strictly presentative as sense-presentations; and when they are so, the term *presentation* must have its meaning extended to include them.

In the desires which belong to distinct representations we have the origin or original motive (so far as it is in consciousness at all) of all processes of thought or reasoning. Desire fixes the attention to that feature in the representation which is desired, and sets up a questioning process which consists in a series of representations concerning the possibility of the desire being fulfilled, or of the means to its fulfilment, by the presentation of the desired feature in the original representation.

In this way desire is the link in consciousness between representations and presentations, I mean in respect of making evident, to the percipient or sentient being, their essential community of nature as modes of consciousness. The presentation of a desired object is felt at once as the fulfilment of the desire, and as the realisation of the representation. Moreover, if the representation and the desire are perceived as located in the body of the percipient, so also must be the presentation, which is continuous with and replaces them. The percipient's body thus comes to be perceived as the common *locus* or seat of both kinds of consciousness, with all that they contain.

A great step forwards in intelligence is thus taken, but still no assured resting-place is found; the position is still enigmatical, and, in one way, even more so than before. For all material objects are thereby duplicated, including even the body of the percipient. Material objects external to the body

must, in consequence of it, appear to exist twice over, once as presentations located in the percipient's body, and once in space external to it. The body itself also must appear to have a double existence, once as a material object, and once as a presentation of that object, yet located within it. The situation seems desperate.

But this difficulty in the percipient's position is at present manifest, not to him, but only to us who are analysing it; since it arises only in conscious reflection upon the position which he is now supposed to have reached, not in conscious reflection upon the phenomena with which he has been concerned in reaching it. He at present is aware of no difficulty in the thought, that his body has perceptions both of itself and of objects external to it; for this is the very thought to which he has attained in perceiving his body as the common seat of presentations, and representations alike.

We must therefore suppose him to go on with the process of reasoning which has led him to this perception without noticing this difficulty on the way And supposing him to do so, that is, supposing him to go on with that representational and reasoning process concerning the fulfilment of desires involved in representations, which we have described, he will inevitably come to a conclusion which develops his initial conception of his body as the seat of both modes of consciousness, into the twofold conception (1) of his body as the one indispensable real condition, upon which those modes of consciousness proximately depend, and (2) of those modes of consciousness as immaterial existents totally different in kind from all material objects,

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including his own body among the rest. Let us see how this takes place.

The general line of reasoning which leads to this twofold conception will be somewhat as follows :— His purpose being to obtain presentations which are the fulfilment of representations containing desires, he will remember that, in countless instances of the lowest and simplest kind, desired presentations have occurred at those, and only those, moments, when material objects have come into actual contact with his body, as in the case of infants seeking the breast, handling toys, and so on ; and that, in general, an increasing nearness of material objects to his body was the prelude to such desired presentations, while their removal was invariably accompanied by cessation of the presentations. He will accordingly argue (of course informally), that, without contact or nearness of material objects to his body, no presentations would occur. He will therefore class his own body and material objects together, as what we should call real conditions of his having presentations, and will class presentations and representations (with their desires) together, as dependent on the nearness or contact of material objects to or with his body, while continuing to locate both modes of consciousness alike in his body, as their constant proximate real condition, the new character of bodies as real conditions being due to the newly-perceived circumstance, that consciousness occurs in dependence on them. In other words, our percipient will now and henceforward consider his body as the Subject of his consciousness, in its entirety, and will broadly distinguish, in point of nature, his consciousness in

its entirety both from his body, which is its Subject, and from all other material objects, which are only among its remote and variable real conditions. The distinction between bodies which are material bodies only, and bodies which are Subjects like himself, will probably be drawn contemporaneously with the foregoing distinctions.

Our supposed percipient's perception of himself as a real psychological Subject of consciousness, or conscious being, is now in its essentials complete. Its attainment involves and is coincident with his first perception of objects as what are afterwards called Real Conditions, though they are, of course, not recognised by him as corresponding to any such name or classification in philosophy. It is in the perception of his body as the one invariable real object, in immediate connection with which all his states of waking consciousness occur, and without which they never occur; or in other words, in the perception of his body as the proximate real condition of his consciousness; that he first comes to any knowledge of such things as real conditions, as well as to the knowledge of himself as a real percipient and real agent.

Nevertheless it must be remarked, that he has still lying before him that difficulty, still to be surmounted, which was noticed above as involved in the reasoning which he has gone through, I mean the apparent duplication of all material objects. It is certain that he will have to confront it at a later period of his experience than that to which the experience now analysed belongs. But before we carry him on to the epoch at which this problem will force itself on his notice, a few words must be

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said both on the conception of Real Condition, and on the existence of the whole external world of Nature, in the shape and form of an Order of Real Conditioning.

§ 2. The conception of Real Condition.

§ 2. The essential characteristic of the conceptual modification of simply perceptual experience consists in the fact, that in it the percipient consciously exercises a selective action on the train of percepts as they actually occur, by which means the train, as it appears in the panorama of objective thought, appears, in the first instance, as broken up into groups, each consisting of similar perceptions, and dissimilar from other groups. But these groups belong to the panorama of objective thought only. They are concepts, expressed by general terms, or logical universals; and, as objects thought of, have no unity, save what is given by the selective action which groups their percepts together on the ground of similarity; the perceptions of which they consist (their logical *extension*) being never present in consciousness together, but belonging to any place or any time, past, present, or future, and including possible just as much as actual perceptions.

But consciously exercised selective action does not stop here; it does much more than merely make concepts, or logical universals, which as units or single groups have existence only in objective thought. It also observes, and retains in memory, the actual grouping together of percepts (though these may also belong to logical groups of its own making), whether similar or dissimilar; that is, observes and retains groupings which it perceives as facts, but does not make, any more than it

makes the percepts belonging to the groups which it does make. And it is out of these groupings which it does not make, but perceives as facts, observes, and retains, that real objects thought of (as we have called them) are composed, including their relations and changes of relation to each other, and their occurrence in and disappearance from presentational consciousness. In short, it is by consciously selective action of this latter kind, that the panorama of objects thought of, or the real world of material things, comes into actual experience, in the manner analysed in foregoing Chapters. And there is all the difference in the world between these two kinds of grouping, the logical and the perceptual, the one founded in the convenience of thought, the other in the observation of fact; a difference to which it is the more necessary to call attention, because of the persistent efforts of the Neo-Kantian or Hegelian school to put them on the same footing, as equally and alike products of logical Thought.

Now we are here more particularly concerned, not with discriminating the part played by the purely logical kind of thought in conjunction with consciously selective action of the latter of the two kinds just distinguished, but with the continued exercise of the latter kind upon the experience of a real material world, taken as an experience already acquired. Its nature as an action continues the same, but it leads up to the conception of real condition only when real objects thought of, or a real material world, have been already established in experience, as the order or the kind of facts upon which it is exercised. And it is only in

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dealing with such facts, that the more obscure elements of its nature become apparent, inasmuch as these facts for the first time enable us to distinguish it clearly as an action intermediate between a *terminus a quo* and a *terminus ad quem*. What, then, is more particularly meant by selective action consciously exercised upon the experience of a world of real things;—how does it arise, and what does it involve?

It arises, so far as immediate consciousness only is appealed to, that is, it seems to arise, from the interest attaching to some feeling, idea, or object, which seems to fix or fetter the attention, making us desirous of knowing whether it will continue or vanish, increase or diminish, or whether another instance of it will occur or not; and this throws us, as it were, into a questioning attitude with regard to it; not indeed for the purpose of seeing its nature more clearly, but for that of procuring or avoiding it. We hold it fast in thought, and try to remember its context. Similar instances are supplied from memory by means of association. Remembering these, we try to remember their contexts also. We thus for the first time obtain the notions of the *possibility*, and of *alternatives*, of a given object, or feeling, occurring or not occurring. We imagine, from the stores of memory, various contexts in which it might occur; and the whole content of memory becomes a content of imagination, and the world which it represents takes on a new character of *contingency*.

Our questioning attitude, produced apparently by a felt interest, thus invests the perceptual

world with the new character of contingency. Will this or that happen ; where ; and when ? Such would be the formulation of our questioning attitude, supposing it to be formulated, which at first it will not be. But there is more to be said. The facts which serve as the answers to questions of this sort are invested thereby, and invest those to which they are answers, with an additional character ; they are perceived not as facts simply, but as facts which are answers to questions ; that is to say, they are perceived to bear a new relation to the facts which, from the interest attaching to them, were the so-called motives of the questioning. The additional character, which any fact which is a motive of a question, and any fact which is its answer, now bear in reference to one another, is that of standing to one another in the perceived relation of real condition and conditionate, a relation of dependence, which does not cease to be one of co-existence or sequence, but is not necessarily the same co-existence or the same sequence which existed between them, as members simply of the historical order of existence. The additional knowledge which we have now acquired is, that, *if* a desired percept is to continue or occur again, something else must continue or occur again independently of it. And we have seen that there are many alternatives or possibilities in our imagination, both with respect to what this something else may be, and with respect to the context in which it may occur. It follows, therefore, that it is only when, by repeated experiences, all the alternatives but one have been eliminated, that we can say of the one which remains, that it and it

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only is the real condition of the desired percept; or in other words, that *if* it occurs, then the desired percept will occur also.

I repeat the provisional definition of real condition which was given in the foregoing Chapter, according to which it means something upon the occurrence or continuance of which, in given circumstances, something else occurs or continues, and without which it would not do so. We have now seen how this conception arises from the interest which we suppose our percipient to feel in a particular percept which occurs to him; and to that extent our provisional definition has been justified. We have next to see more precisely how it differs from a simple percept. And in the first place it seems clear, that the character of being either a condition or a conditionate, is not an immediately perceived attribute of any percept or percepts, notwithstanding that relations of co-existence and sequence may be perceived between them. The perception that one *depends* on another or on others is different from the perception of time and space relations between them, and presupposes it. However early in the history of an individual he may begin to acquire this additional perception, and it is probably very early, it still remains additional, being a complex perception in which simpler perceptions are included and presupposed. Historically speaking, our percipient probably acquires its rudiments at a very early stage, and then continues to complete it *pari passu* with his completion of the perception of an external world. Still it remains a complex perception, compared to that of an external world

simply, and has the perceptions composing the latter as its *prius* in order of knowledge. Not that perceptions of material objects do not involve consciously selective action, in the form of attention, comparison, and reasoning, but that the purpose which governs those processes, in their case, is simply that of perceiving and knowing, more clearly than before, the *de facto* nature and relations of phenomena which have been already perceived ; whereas a desire for a presentation of what we actually have in representation only, or for the absence of one which we represent as possibly absent, is the motive of reasonings which in the first instance lead to the complex perception, representation, or conception of dependence.

The important fact to notice is, that this conception of the occurrence of one thing being dependent upon the occurrence of another, whereby the characters of conditionate and condition respectively attach to them, originates, not in presentative perception, but in redintegrative processes guided by consciously selective action, that is, in thought. The character of being a condition or a conditionate is not originally perceived in objects, but only justified by perceived facts, after it has been suggested by other facts. That is to say, it is a conception first, namely, the conception of dependence, before being perceived in objects at all ; and when the conception has been justified by perception, still the characters which result from it are not perceived as elements in the objects to which they are attributed, but as characters with which they are invested ; and when predicated of the objects which they clothe,

they are predicated as what may be technically called terms *of second intention.* As for instance, when I say that a lighted match was, in given circumstances, the real condition of an explosion, this indicates not merely the fact that the explosion took place under those circumstances on the application of the match, but also my belief that it would not have taken place, under the same circumstances, without it.

The application of the term *real condition* may thus be justified by simple facts of perception, both as to the fact of the explosion, and also as to my belief that without the match there would have been no explosion. Still the term taken alone does not express facts of perception simply, but facts of perception and belief together ; and therefore, in predicating it of the match, I am attributing to the match a character which has some other source besides that of simple perception, a character of what is commonly called *causality* in relation to the explosion, which character is originally suggested by a conception on my part, and not by perception alone. For, that the explosion *would not* have taken place but for the match, is not a fact which it is possible to perceive presentatively. Only the *de facto* can be simply and immediately perceived. When terms expressing conceptions are used to describe such an idea as true, they must be used as terms of second intention, the truth of which may be justified by perception, namely, by perceptions of the presentative occurrence or non-occurrence of given representations in particular contexts, but which are not perceptions themselves. Concep-

tions which are formed and attributed to objects or sequences of objects in this way, among which those conceptions which we call Laws of Nature are to be reckoned, do not belong to those objects or sequences as essential constituents of their nature, any more than their names do. I mean that they are not perceivable as elements or factors in them, and therefore are not among the ultimate data of experience.

§ 3. Summarising our results, in order to draw further conclusions from them, it is clear in the first place, that the characters of real condition and conditionate, and the relation of dependence or real conditioning, for what has just been said applies to all alike, are perceptions of that special and modified kind which we call conceptions; that is to say, originate in a conscious re-action, dealing with simple perceptions, on the part of the Subject. And since they are not simple perceptions, the re-action which originates them must, in originating them, take the form, not of a statement of fact, but of a question. Some feeling of desire or aversion, or some object of desire or aversion, must give rise to a state of mind which we afterwards formulate as a question, —How is this to be obtained or avoided? We then *ipso facto* have our attention fixed, in expectancy, either upon the experiences which have already been associated with the feelings or the objects in question, or else upon those which are about to occur in connection with them. In any case expectant attention must be aroused, to question the phenomena which are the context of that in which we feel this practical interest.

The answer which observed facts give to this questioning invests those facts with the character of being real conditions of the feelings or objects which interest us, and give rise to the questioning. A child playing in the garden sees gooseberry bushes on the other side of a fence. Were it not for that fence, he thinks, I could get at the gooseberries. The fence is a real condition obstructing his desire.

Desire in some form or other is thus the origin of the questions, *How comes? What makes? How behaves?* Further experience supervening on the questions, or recalled from memory in consequence of them, then gives the answer; and the answer, when given, is or includes the conception of real condition. Without the questioning there would be no such conception; there would be nothing but a register of *de facto* experience. It is thus a conscious re-action on the part of the Subject, combined with facts of simple perception, which introduces the idea of real conditioning into our world of thought. And although it is neither a Kantian *a priori* concept of the Understanding, nor a Scholastic intellectual intuition of causal essences, nor yet on the other hand a mere record of *de facto* experience, it is nevertheless an idea which is thoroughly and completely justified as true by *de facto* experience, provided that it is frankly acknowledged to be a conception which needs justification; that is to say, a conception framed by conscious re-action on the part of the Subject, whereby he interprets facts of perception, or in other words, transposes perception, which is one mode of consciousness, without falsifying it, into

thought, which is another mode of consciousness, for greater convenience in handling it. Immediate reflective perception remains always the ultimate source, not only of original suggestion, but also of verification, which is the final authority of revision and appeal.

The whole *de facto* Course of Nature, as a sequence of objects having perceptual form, in past, present, and future time, is thus partially understood, rendered intelligible, or brought within our mental grasp, by being conceived as an Order of Real Conditioning. But there is no substitution, or supplanting of one order by the other. The second is but a mode of understanding the first, a shape or name given to the first in or by the order of knowledge, the panorama of objective thought. It is in thought what the Course of Nature is in perception; just as objective thoughts are, in knowledge, what the objects thought of by them are in the world of real existents; the difference between the two cases being, that we have in the latter case a correspondence of percept to percept (though after one of them has passed through the process of conception), in the former of concept to percept. Real conditions and conditionates, as such, do not exist in the Course of Nature, but only facts or objects of perception, which are conceived under those terms. What we gain by so conceiving them is a generalised knowledge, applying to hypothetical and imaginary as well as to actually perceived circumstances; a knowledge of general facts or laws of nature, from which other facts may be deduced or inferred. But the whole content of this conceptual knowledge, taken as a content,

belongs to the order of knowledge as distinguished from the order of existence, or Course of Nature itself. It is a means of discovering and understanding facts; but those facts only, and not the conceptions which embody the understanding of them, are the existents of the order of existence, with which we are then concerned.

But is not then, it may be asked, the process of conceptual thought itself a real existent, is it not real as a process? It has been already said, that in it we really re-act upon and modify the actual order or train of percepts. Must it not therefore be allowed to be real, with the same reality which attaches to that order? This is not and cannot be for a moment denied. Indeed this is the very thing which it is my present purpose to insist upon. The percipient exercises a real action in the process of conceiving, and really modifies his trains of percepts. But he modifies them only as percepts of his own, that is to say, as existents of one only of the two great classes composing the Course of Nature, he does not modify the material things which constitute the other great class of existents; all he modifies with respect to these is his own way of regarding them; until of course, outgoing nerve and muscular action follows as the consequence of the modification, or of the nerve movements supporting it, which consequence is not now under consideration. In other words, the content of his conceptions, *qua* conceptual, belongs to the panorama of objective thought, and its real existence is the real existence of consciousness, as distinguished from the real existence of matter. The objects thought of by those con-

ceptions have real existence, not in the material objects and events, of which they are the understanding and interpretation, but solely in the thinking process, which understands and interprets the material objects and events by means of them. These objects and events are existents of one class; the thinking process with its content is an existent of another class.

Thus it is evident, that the very first instance, to which we have to apply our analytical distinction between the subjective and objective aspects of experience, is the process of conception itself, by which a further knowledge of the world of objects thought of is obtained. Conception in its entirety belongs to one of the two great classes of existents composing the existent world, and, like the whole of that class, is necessarily distinguishable by a line of demarcation running right through it as a concrete or empirical process, which distinguishes, for us who analyse it, what it is as an existent fact and process, from what it is as a knowledge of other processes and facts. As an existent process it is what we call *thought, judgment, reasoning*, or the thinking process; as a mode of knowledge it is the conceptual form, a form consisting of conceptions such as those of condition, conditionate, possibility, alternatives, contingency, necessity, actual existence, and so on, into which we throw perceived relations in the act of thinking of them. It is in fact to this very process that the establishment of the distinction between consciousness as an existent and consciousness as a knowing is due, of course in dependence upon facts of simple perception, which

§ 3. The Order of Real Conditioning.

are summarised and definitely embodied in that distinction.

To the Course of Nature, which is the object known and analysed by conceptual thought, belong not conditions or conditionates, not general facts or laws of real conditioning, but the sequences and co-existences in time and space, which we group under those conceptions, or discover by means of them. These it is, of which the Course of Nature is composed. The sequences and co-existences themselves, like the objects which they connect, are all *singular*. It is singulars only (the *particulars*, as they are sometimes called), which exist as existents. A law is a general fact, and exists only in our thought, as a form or mode in which we apprehend the existent singulars. The same may be said of the character, or "second intention," of condition and conditionate. To attribute laws of nature, or the character of being a condition or a conditionate, to the Course of Nature, is to make entities of abstract generalities. This is constantly done by empiricists, because they do not advert to the distinction between the two characters borne by all states and processes of consciousness, their character as knowledge and their character as existent. They then imagine, that these conceptions, so converted into entities, correspond to some real specific essence or agency in the facts, over and above their time and space relations of sequence and co-existence. And finally, having invented this hidden essence, and imagining it, as they must, to be everywhere present behind the facts, they complain (or boast) of the unknowability of things as they are really and in themselves. Fortunately

the real nature of their fiction is less difficult to discover.

A similar criticism applies, as we shall see later on, to the conception of Force. But with this we are not at present concerned. It must however be noticed that, in the fallacy now once more detected, we have one great source of philosophical scepticism. The fallacy consists, first, in making entities of conceptions, such as conditions and laws, thus taking thoughts for things, and giving them a position behind, within, or beyond perceptual facts, as something which supports and governs them, or which constitutes their real essence, and then turning round upon these very conceptions as unable to give us a true knowledge of the entities they are taken for. The realities, which in fact they stand for, are the existents, and time and space relations of the existents, which compose the Course of Nature.

At the same time the *truth* of these conceptions is wholly unaffected by the foregoing criticism. Truth and falsity attach to them, if at all, in their character as concepts, belonging to the order of knowledge and representing the order of existence. The knowledge gained by the conceptual analysis which we have been describing may be, and undoubtedly often is, *true*, notwithstanding that there are no separate entities in existence represented by its conceptions. In fact, if there were, the objective truth of the conceptions would be *ipso facto* precluded. Conceptions are true, when the facts which they throw into conceptual form are real as percepts, or in their perceptual form of co-existences and sequences of objects in time and space.

Now it is impossible to avoid using conceptual thought in the investigation of nature, or to dispense with the conceptions of condition and conditionate, by which it moves. We are restricted to think of nature, if at all, under these general notions; though we are also bound, under penalty of inevitable error, to distinguish in our results the part which belongs to the existents thought of, and the part which belongs to our own method of procedure. The principle of this distinction is what I have just been endeavouring to make plain.

But when we think of Nature, as we must, under these general notions, we find that a new character is thereby imparted, in our thought as an instrument of truth, to the whole Course of Nature and every part of it. That is to say, we have to think of every existent in it as either a real condition, or a real conditionate, or both. Besides being an object thought of, in relation to objective thought, it is also a conditioning or a conditioned object, or both, in relation to other existents. And this applies to both the great classes of objects composing the existent world, I mean (1) material things and their changes, and (2) states and changes of states of consciousness.

This raises the further question, in what relation the objects belonging to these two classes respectively stand to the distinction between real conditions and real conditionates just mentioned. Do consciousness and material things alike belong to both heads, in the sense that they are conditions and conditionates of each other; or secondly, is either of them a conditionate of the other without in turn conditioning it, or a condition of it without

being in turn conditioned by it; or thirdly, supposing there is no relation of conditioning between the two classes at all, do the phenomena of each class severally condition one another, independently of those belonging to the other class? These questions, it is evident, open up the whole problem of Idealism. In fact the question of Idealism is raised, the moment it is proposed to attribute real conditioning to consciousness as distinguished from matter. This is too large a question to be formally debated in the present Chapter. Nevertheless the analysis which lies next before us will not be without results which will, I hope, contribute in no small degree to clear the ground for correctly appreciating it.

§ 4. For what we have plainly next to do is, to get some more precise conception of the difference between a real object thought of and that same object taken as a real condition. That is to say, we must repeat the method of taking for analysis some simple material object as a representative instance, and then endeavour to distinguish these two characters in it, one from the other; or in other words, distinguish those features in it to which it owes its additional character of being a real condition or conditionate, from those which constitute it as a real existent simply. This will plainly be a work of analysis.

But first a word about our method in proceeding to the analysis. It will, I think, be most convenient, if at this point we imagine, that our supposed percipient and ourselves, his supposed observers, have joined hands, and are now carrying on the analysis of our common experience together.

§ 4. Analytical discrimination of real Conditions from real Existents.

We have watched his process of arriving at the perception of himself as a conscious being, and have seen that he has reached it, or will have to reach it, by processes of reasoning. We may fairly suppose him now to be capable of philosophic questioning and scrutiny, directed upon the course and nature of his own experience. We have moreover seen, that he has still to face a difficulty, to which his own perception of himself has given rise, I mean the apparent duplication of material objects, once as presentations, and once as objects presented (§ 1); a difficulty which, it was remarked, arises only in philosophic questioning of experience, which only philosophic analysis can resolve, and which in fact is as much a difficulty for ourselves now, as it ever could have been for a pre-philosophic intelligence. Henceforward, then, we may fairly identify our supposed percipient with ourselves; and here accordingly I will step forward in his place, and speak of experience in the person of the experiencer.

Suppose, then, I have before me a bell, which I hear ringing, while I see it being tolled. The sound, which is a state of consciousness in me, is plainly no part of the bell as a material, that is, a visible and tangible object. But as a state of consciousness it is conditioned on the tolling of the bell. The bell is one of its real conditions. There are of course others. There are the vibrations which its tolling sets up in the substance of the bell, and there are the vibrations communicated by these to the air, and there are the vibrations or other physical processes set up by their means in my organ of hearing. If we ever thought of the

sound as a constituent attribute of the bell, we have now no difficulty in eliminating it from the bell in that character, replacing it by physical processes in the visible and tangible bell, and localising it in ourselves as the conditionate of those processes. I say we have no difficulty, because on the one hand we have already seen, in § 1, that all perceptions as such are, and on consideration must be, localised in the organism of the Subject, and on the other the sound is not perceived as belonging to the bell at all times, or in all its states, but only at the times when it is being tolled.

The analysis of these physical processes may be carried to an extreme degree of accuracy and minuteness, as, *e.g.*, in determining the exact number and length of vibrations requisite to produce a given note. But this does not alter the relation of conditioning; it is an analysis within and covered by that general conception. Neither does it signify for our present purpose, what the analysis of the sound heard may be, what its intensity, pitch, and tone. We are not regarding it as an object of perception simply, but are seeing what are its place and function in the order of existence; what objects precede, accompany, and follow it, in that order. And what we find is, that it is preceded by the bell, the tolling of the bell, and vibrations in the air, and also preceded first, and then accompanied, by motions or physical processes of some sort in the neural apparatus, without which it would not arise or continue as a state of consciousness. What follows on the sound, considered as a state of consciousness simply, is a more

obscure point, which we may leave aside for the present, since it would plainly take us out of the region of analysis into that of conjecture.

So far all is plain sailing. We have the bell and its sound, two different existents or objects thought of, one of which is a real condition of the other. Two different existents are respectively condition and conditionate. But the case becomes more complicated, when we examine the relations between the bell and those states of consciousness which constitute our knowledge or objective thought of it as an existent object. I mean by *the bell* those visual and tactual perceptions, the combination of which, by means partly of association, constitutes the perception of the bell itself as a real object thought of, according to the analysis given in Chapter V., and the position occupied in Chapter VII.

Now this seems to land us in a difficulty. So long as the bell was a different object from its conditionate, as in the case of sound, there was no difficulty in regarding it both as a real object and as a real condition, an object to us and a condition to the sound; the respect in which it was the one was not the same as the respect in which it was the other. But now the perceptions which it seems to condition in us are the very same as those of which it seems to consist, or, in other words, which seem to constitute its nature, and the continuance of which in combination with each other is its very existence as a real object. The moment, therefore, that we apply the conception of real conditioning to the bell itself, we are met by the question, whether we are to conceive the bell as

the condition of the perceptions which are our objective thought of it, or these perceptions as the conditions of the bell. In our earlier analysis we took perceptions as belonging solely to the order of knowledge; but when we take them also as real existents, and in some cases forming groups which have a permanent existence, as we are now doing, the question arises, whether they are not also real conditions in the order of existence; and this question is not pre-judged by the earlier analysis.

Fairly confronting the question, then, let us ask in the first place, whether visual and tactual perceptions can be conceived as building up or constructing the bell as a real existent, by processes which would then *eo ipso* belong to the order of real conditioning. It is clear that they cannot. For over and above the content of these two groups of perceptions, which coincide in occupying the same portion of space for the same length of time, there remain the facts, first, of their occurring in conjunction, and then of that particular conjunction being retained or recalled in memory; and there is nothing in the perceptions which accounts for this. Disparate in their own nature, they are originally combined in or by processes which we call association. But whence or why the association? To combine and retain them in combination a real agent or agency, other than, or at least distinguishable from, the perceptions, must be assumed. And the only reality we positively know of, which could serve as agent, is the organism or body of the percipient, which he perceives as a real object thought of, and in which

(see § 1) he now perceives his entire consciousness to be located. But this is a material object of the same class, and belonging to the same external world, as the bell. The same questionings and the same reasonings would apply to it as to the bell. And in its case there is no further real condition of the combination of perceptions available; for the organism cannot be itself built up by an association, the existence of which pre-supposes it. The existence of the organism as a real object is therefore one of the real conditions of the occurrence and association of the perceptions, which together are our perception of the bell. And whether the bell, as a real object thought of, is or is not also a real condition of those perceptions and their combination, which are our objective thought of it, the organism at any rate plainly is so. Except in the organism, our visual and tactual perceptions are not combined into our perception of material things. But the organism is not itself perceived except *pari passu* with material things external to it, as we saw in Chapter V. For the real existence of these there is precisely the same evidence as for that of the organism.

When, therefore, we have once become aware, as we are now supposed to be, that our whole knowledge of the material world is built up out of the perceptions of our consciousness, we still cannot attribute its real existence wholly to our perceptions, for these do not account, either for their own combination in a specific order and grouping, or for the fact, that certain groups of visual and tactual perceptions have a coherence and comparative permanence of their own as objects thought

of, in contradistinction from the permanence of our objective thoughts of those same groups of perceptions. We are therefore compelled to have recourse to Matter, as the only real existent, positively known to us, which is also a real condition. In Matter we must find the only positively known source of the real conditioning in or belonging to the Course of Nature. It is in what I will call our conceptual analysis that we come to this result; meaning by the term any analysis, the immediate object of which is wholly or in part constituted by conception, or consists wholly or in part of concepts. For when we apply our conception of real condition to the two great classes which divide the existent world between them, we find that conception realised only in material things, and not in the perceptions out of which our knowledge of them is composed; because these perceptions, taken simply as existents, are not coherent of themselves, nor do they in any way explain how their own coherence is brought about.

But here perhaps it will be objected, that the same negative criticism is equally destructive of the alternative view. And it is undeniable, that material things do not give an ultimate explanation of their own coherence. But there is this difference between the two cases, namely, that material things are always as a fact coherent, simply in their character of material things. Without coherence of parts there is no matter. Visual perceptions on the other hand are often experienced without the complementary tactual perceptions, and tactual without the visual, as in handling things in the dark, or with the eyes shut.

The combination of visual with the complementary tactual perceptions, therefore, requires some real condition; which it finds in coherent material things, when these have once been inferred and thought of as real objects, distinct from consciousness, and existing independently of it. The coherence of matter is unexplained, it is true; but then, like matter itself, it is an ultimate and universal fact, in the order of existence and real genesis, to which they both belong, a fact disclosed by analysing our face to face experience of matter, taken as a given reality belonging to what, in common-sense terms, we call the positively known existent world, or Course of Nature; a fact, moreover, not liable to be questioned or disproved by any more special analysis of the emotional, volitional, and intellectual functions, with their content, which may subsequently be entered on.

Just as the inseparability of the elements and parts, simultaneous and successive, of consciousness in time is an ultimate and inexplicable fact in consciousness, without which fact consciousness would not exist, so the coherence of parts in matter, which we know by means of association, is an ultimate and inexplicable fact in matter, since it is pre-supposed by the existence of association, which is the means of giving us a knowledge of it. The coherence of parts in matter, when matter is once perceived as an existent, finds its analogue or parallel, not in the coherence of our separable perceptions of matter, but in that of the elements, formal and material, which compose process-contents of consciousness simply, which is experience in its lowest terms.

I argue, then, that, while the combination of visual and tactual perceptions is or contains a sufficient explanation of what matter is known as being, that is to say, of our knowledge of matter, it is inadequate to explain its real genesis, that is, how matter comes to be what it is known as being, that is, a reality coherent in its parts. Of this there is no known, or even positively conceivable explanation; though this circumstance, far from showing that no explanation is required, shows on the contrary, that something there must be, analogous to what we call a real condition, which, could we know it, would furnish the explanation. Coherent matter is an ultimate fact in the world of real existents, the object of our knowledge. Visual and tactual perceptions in combination are good as an analysis of our knowledge or idea of matter, but are no analysis or account at all of matter as an existent reality. They account for its *whatness*, or nature, as a known object, by accounting for our objective thought of it, but not for its *thatness*, or genesis as a real object thought of.

Returning, then, with these results in hand, to the analysis of the bell, undertaken in order to discriminate what belongs to it as real condition from what belongs to it as object simply existent, the first observation to occur to us will probably be the following. The objective thought of the bell by no means exhausts its whole content as object thought of. This appears from our analysis in Chap. V. We there found that an object thought of always contains *more* than is positively contained in the objective thought of it, for which *more* there is allowance made by our taking the objective

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thought itself as possibly incomplete and inexhaustive. Moreover we found, that something tangible was always, strictly speaking, the object of visual perceptions, and something visible of tactual ones. We now see what this something more is. It is the filling up of the solid space, the contour of which is given by those perceptions in combination, which in this case is the solid figured mass of the bell. We may lay open the substance or thickness of the solid walls of the bell, in any part of them, and everywhere, so far as our means of division and perception allow us to proceed, we shall find solid particles of matter, each of which is visually and tactually perceptible, just as the contour of the bell itself is. It is this coherent mass of matter, including all its parts or molecules, and their time and space relations and changes of relation, *i.e.*, configuration and motions, with respect to one another, which we now think of, when we think of the bell as a real condition of the visual and tactual perceptions, which are our knowledge of it as a real object. These perceptions, on the other hand, still constitute as before our idea or knowledge of the bell as a real object, but we now perceive in what sense their inexhaustiveness is to be taken, in what particular they were inadequate to the whole nature of the bell. They give us a knowledge of the bell as a real thing, but they do not give us a knowledge of its solid interior, that is, of the bell as a real condition. And it is evident, that the same reason applies to any material object whatever, however small, even microscopically small, it may be. The real agency lies within the figure of solid matter, whether the

solid matter in question be an ultimate atom, or the whole material universe. That is to say, it lies within every empirical part of every empirical material whole, wherever such parts or such wholes may be taken. This knowledge is an addition to the former, but in no way a contradiction of it. Real conditions were not in contemplation when the former perceptions, constituting the objective thought, were experienced. They are no more a contradiction to it, than the additional perception of depth is a contradiction to the perceptions of length and breadth in solid objects.

Similarly with the perceptions themselves. When they were originally experienced, the question of real conditioning had not been raised, and was not raised by those experiences alone. It is no contradiction to them, or to the knowledge which their combination gives, that they are afterwards seen to be effects or conditionates, as well as immediate perceptions. They contain no assertion of their own causality or aseity. They are, it is true, first in the order of the genesis of our knowledge. But the priority of a piece of knowledge in the order of the genesis of our knowledge by no means implies the priority of the object thought of by that knowledge, in the order of existence. Matter need not exist as object thought of before it exists as real condition, because we are aware of it first as object thought of.

The perception of Matter generally as a real condition is the result of a long series of perceptions, and combination of perceptions, in which the perception of its independent reality is, as it were, the final touch put to the knowledge they give us of its

nature. This complex perception or conception of matter, which is last in the order of the genesis of our knowledge of it, then becomes first in the order of a new series of objective thoughts concerning the relation between matter and perception, a series retrospective upon the past experience, and therefore (*i.e.*, *qua* retrospective) belong-to the true Order of Knowledge, as distinguished both from the order of the genesis of knowledge, and from the order of genesis of states and processes of matter. The reality of matter as object thought of is but the double of our objective thought of it, and nothing more. But this same reality then becomes the object of a series of conceptions and combinations of conceptions, which exhibit states and processes of matter as the *prius*, in order of existence, of all perceptions, including those by which its own nature and existence have originally been, and are perpetually being, made known to us. There is no contradiction between a knowledge of real matter being last in the order of genesis of our knowledge, and real matter, in some of its states and processes, being the real condition of that order; because the order of knowledge, in the strict sense of the term, being retrospective upon both these orders, is different from both; that is to say, from the order of genesis both of knowledge and of its real conditions, which for our purposes may be considered as two currents of events, running parallel to each other, and dividing between them the whole Order of Existence, or Real Conditioning. The visual and tactual perceptions, which taken together give us our knowledge of matter, are antecedent contributory conditions of that know-

ledge, because, as existent states of consciousness, they are real conditionates of real matter.

But, notwithstanding the foregoing observations of fact and general considerations founded on them, we are still far from the completion of our analysis of Matter. The final and conclusive steps of that analysis still remain to be taken. We have seen that what we call material things are material through and through. Any one of them, or any part of one, may stand as representative of all, so far as the essential nature common to them all as material objects is concerned. We have, moreover, already eliminated perceptions of sound from the object taken as example, a bell, and thereby virtually eliminated from material objects generally, *qua* material, all kinds of perception or modes of consciousness save two, namely, the visual and the tactual; of combinations of which in the same portion of three-dimensional space all material objects and their parts appear actually to consist, at that period of experience, analytically distinguished, which we are supposing ourselves to have at present reached. The question is, whether this appearance, namely, that all matter consists of consciousness, that is, either of visual and tactual perceptions together, or of either kind alone, can be accepted as the truth; that is to say, will it or will it not be justified by analysis?

Now in the first place we must plainly eliminate visual perceptions, those of light and colour, as we have already eliminated sound, from the essentials of matter. They are essential to give us an idea or knowledge of a world of material objects, but they are not essential to matter taken *per se*, that

is, to single portions of matter taken alone; as was sufficiently shown above in Chap. V. And this being so, then they fall under the reason of the argument by which sound was eliminated from the essential constituents of the bell. That is to say, when we ask how tangible objects come to be visible, to have light and colour on their surface, the answer is, that this is due to changes which their molecular constitution imparts to the etherial vibrations which impinge on them, and which they transmit to the sensitive organ of vision in the Subject, which is the true seat of the perception. The perception of light and colour is thus located in the organism, while what is left in the material object, said to be seen, is a molecular constitution capable of action, which is the real condition of the perception.

But it must be noted, that this account of the phenomena will hold good only if there is such a thing as real matter, from which consciousness is eliminated, existing in the form of tangible objects of various kinds and variously located, among which are to be reckoned etherial or other material media, and living material organisms in which consciousness may arise. The whole reasoning, therefore, depends finally on the answer which analysis will give to the final question,—Whether real matter must or must not be thought to exist, exclusive of consciousness; that is, as not itself consisting of consciousness of any kind, but conditioning the existence of consciousness in material organisms; which in its turn, when and as it comes to exist, is the knowledge of it. If the final answer to this question should be in the negative,

then philosophical Idealism would be virtually established.

Addressing ourselves, then, to this question, what we have before us as our *analysandum* is the nature of Matter in its essential constituents, which are those commonly classed as its primary properties or attributes, and which are also those known either as or by the immediate perceptions of touch and pressure, hardness and resistance. *As* or *by* those immediate perceptions is the alternative; that is,—Are the primary properties of matter themselves perceptions, or are they properties of matter which exist independently of perception, and which, when perceived, are its face to face objects ?

In answer, I refer in the first place to the analysis of these perceptions, and that of the material objects, the perception of which grows up out of them, in Chap. V. And next I remark, that the perceptions of touch and pressure there described, though immediate objects of reflective perception, and not perceived as anything else than perception, that is, process-contents of consciousness, are nevertheless not perceived as process-contents of consciousness exclusively, or as contra-distinguished from anything whatever which additional experience might disclose. They are not, at the time, recognised as perceptions or consciousness, distinguished either from an independently existing matter of which they might be attributes, or from the real conditions, if any, of their rising above the threshold and entering into the time-stream of consciousness, in their character of perceptions. They are the ultimate data of our

knowledge of what we subsequently call matter, but by no means a complete knowledge of it. They cannot be held to preclude the possibility of a further knowledge of its nature, derived by way of inference from themselves in conjunction with data of other kinds, and other more complex phenomena of experience.

Now it is by a reasoning process, that is, by inference, after putting the question of genesis or *how comes* to particular anticipated or imagined perceptions, that we arrive at the idea of matter being a real condition of the occurrence of perceptions, as well as being a complex perception itself. We know it in the first instance only as what we afterwards call a complex of immediate perceptions. But the existence of those immediate perceptions, in the time and space order in which they actually occur, requires accounting for. Why, for instance, should the immediate perceptions which form the complex perception, say, of a paper-knife handle, or of our hands grasping one another (instances given in Chap. V.), occur in their actually perceived order and combination? There is literally no answer to these questions in the immediate perceptions themselves. They force us, therefore, to the inference of some permanently acting real condition, which as an object of inference is and must be a represented object in the first instance.

We have already seen what this purely represented object is, represented, I mean, in comparison with the complex of immediate perceptions of touch and pressure alone; it is the solid interior of material objects taken singly. We can verify the

truth of this representation in innumerable cases, provided we have visual presentations of those objects at the same time. By these experiences we are compelled to recognise, that immediate perceptions of touch and pressure, taken alone, are strictly surface-perceptions only, though of course not excluding, but on the contrary implying, that, as surface-perceptions, tangible surfaces are the surfaces of three-dimensional spaces which are not ideal or purely mathematical figures. A purely mathematical surface would be a purely abstract representation, not a content of presentative sense-perception at all, as the immediate perceptions of touch and pressure are.

In the next place we are aware, again by exercising sight and touch together, that the immediate perceptions of touch and pressure are not only surface-perceptions, but also contact-perceptions; that is, they occur only when two surfaces, each perceivable by surface-perceptions, are in contact with each other. That is to say, their occurrence is conditioned on the fact of the surface of the material object, said to be touched, coming into contact with the surface of the material organism, said to be touching it; and that without the intermediation of material media, such as the etherial vibrations which are requisite in the case of the visual perceptions of light and colour. Visual perceptions are our ultimate evidence for this fact. For by them we see the two surfaces, the touching and the touched, coming into contact, while the actual moment of its attainment synchronises with the occurrence of the actual perceptions of touch and pressure.

These considerations lead us at once to another, which is decisive. The same immediate perceptions of touch and pressure cannot exist at once in the material object, which they appear in the first instance to compose, which is the object said to be touched, and in the Subject's organism, which is another material object, external to the former, and said to be touching it. But, as perceptions, we have already seen, that they must be localised in the organism. They cannot, therefore, be thought to exist as perceptions in the external material body touched or handled, as we might have thought concerning them, so long as we considered them only as isolated groups of perceptions, not also making part of a material world. And exactly the same considerations apply to the material organisms, in which perceptions as such are localised, as to material objects external to them; that is to say, they cannot be thought to be composed of the perceptions which are localised in them, but must be held to have an independent existence, prior to perceptions arising in them.

We are therefore forced to the conception, that these immediate perceptions of touch and pressure are also perceptions of properties or attributes of matter, called hardness and resistance, which are not themselves perceptions but objects of perception, existing in matter, independently of whether they are perceived or not; and at the same time, that material objects, in virtue of their essential properties, and of these among the rest, are or contain the real conditions of perceptions appearing, in their character of perceptions, in the organisms of Subjects. In fact we are forced, in thinking

about and harmonising our experiential data, to sunder certain phenomena which were originally experienced unsundered, because undistinguished, into a perceiving here, an object perceived there; the perceived object having, in the one special case of immediate tactual perceptions, the two peculiarities, (1) that it is in point of kind a replica of the perception of it, and (2) that it is an attribute or property of the originating real condition of that perception arising in consciousness.

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The distinction between consciousness and real matter which is not consciousness, but is in virtue of some of its properties a face to face object of consciousness, and in virtue of others the real condition, proximate or remote, of the arising of consciousness in material organisms, is thus decisively established as true, by the impossibility of conceiving one and the same process-content of consciousness to be located in two different places at once. As consciousness it must be located in the Subject's organism, and therefore it must be eliminated from perceived matter as contributing to constitute or compose it.—The common-sense conviction of the independent reality of Matter, or in other words, that material objects are real objects perceived by, but not consisting of, consciousness, is thus fully justified by the facts of experience as disclosed by subjective analysis. At the same time, the conception of Matter as the only positively known real condition is completed, by eliminating consciousness from it as a constituent of its nature as a real object thought of.

§ 5. Philosophical Conclusions from this Analysis.

§ 5. Let us now see whither this analysis has conducted us, and how in consequence of it we

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must now conceive the world in which it has placed us; that is, draw some of the conclusions in philosophy which it necessitates. The bell must be allowed to stand as the representative of all real material objects whatever. We began with it in the present Chapter as a real object thought of, in the sense of the foregoing Chapter, that is to say, a real object made up of visual and tactual perceptions in presentation and representation combined, and in time and space together, that real object, of which the pure representation or objective thought, in our mind, is taken to be a faint duplicate or copy. What has now become of this real object, and what of its representational copy?

And to speak first of the real bell, that is, of the whole material world, of which it is the representative. It now appears from the foregoing analysis, that there is just one small class of experiences, in which consciousness is a true picture or transcript of the independently existing real world of matter, namely, the immediate perceptions belonging to the sense of touch, which have the hardnesses and resistances of real matter as their apparently undistorted objects. I say apparently undistorted, because the perceived separation of what was originally perceived as a single object of reflective perception (say a surface as touched by a finger-tip) into two objects of reflective perception, namely, a perceiving in the Subject and a perceived in what is an object relatively to that Subject,—this perceived separation in point of locality affords no indication whatever of any change in the kind of content which after separation is conceived as belonging to both objects alike

(barring of course the difference, that one is consciousness, the other not), nor any reason for inferring that such a change has taken place.

Neither can hardness or resistance as attributes of matter be held to be creations of the perception, imagination, or thought, of the perceiving Subject, at least so far as experience or any legitimate inference from experience goes. The experience both of the perceiving and of the object perceived, as distinguished and locally separate from each other, has been shown by our analysis to issue from and pre-suppose an experience in which the perceiving and the object perceived were undistinguished and locally coincident; from which each alike, after distinction and local separation, inherits in experience the property of being a content occupying time-duration and spatial extension. That original experience of them as one, or undivided, is the *prius* of the experience of them as two, or divided from each other. But there is nothing to show, either that the content of the two, the perceiving and the object perceived, is different in kind (except as consciousness differs from something which is non-consciousness), or that it is made what it is, either by being impressed upon the perceiving by the object perceived, or by being read back into the object perceived by and from the perceiving. The experience of it in both, when they are divided, has a common source in the single original experience, which contains both implicitly, undistinguished from each other.

Yet it is also true, that we have no positive test of the identity in kind of content of the

immediate tactual perceptions and the perceived hardness and resistance as attributes of matter. True, as a matter of fact we invariably bring the truth of any complex perceptions, ideas, or conceptions which we may entertain concerning the world of real matter, to the test of their accordance or non-accordance with experiences of this class, or with established inferences which have been drawn directly from them. All other properties of matter, and all processes which may take place within it, or within its parts, relatively to one another, appear to us now, in consequence of the experience analysed in the foregoing Section, to form one vast object of consciousness in its entirety, from which it is essentially different in point of nature, since it excludes all forms of awareness, which is the distinctive characteristic of consciousness, but which nevertheless is held to contain a true picture or be a true knowledge of it (though one which is always imperfect and incomplete), in virtue of that single class of experiences, in which the object thought of and the objective thought of it, though locally separate, are thought of as the same in point of content. Nevertheless, whether they really are so or not is a point which can never itself be brought to the test of presentative perception, since we have no other knowledge of the attributes of real matter than that which ultimately depends upon the immediate perceptions which it is proposed to test. We see, then, that, while the fact of the independent existence of matter, as something which is non-consciousness, is established beyond a doubt by the foregoing analysis, inasmuch as it is shown to be or to contain the real conditions

upon which consciousness, which is the awareness of it, depends for its existence, still the exact correspondence or truth to fact of those perceptions, which are the ultimate data for our knowledge of its nature, can never be itself tested; and this is so, simply because we can have no other knowledge of it than that which, in the last resort, these data supply.

Matter, then, and the real processes, changes, or motions, which go on within it and within or between its parts, we must think of as the complex of real conditions, upon which consciousness in all its modes depends for its existence; and as so thought of it is again the object of objective thoughts, which as modes of consciousness are dependent upon it. The philosophical distinction between objects thought of and objective thoughts still continues to be applicable to it. Not that objective thoughts are included among the attributes or processes of real matter, but that what those attributes or processes are can be learnt only by asking, what they are thought of as being by objective thoughts, or in other words, what is the content of those objective thoughts by which alone we know them.

Thus an ideal line appears to run right through every state and every process of real matter, taken as the complex of all positively known or knowable real conditions, a line dividing its existence, or its reality as an existent, from its nature, or what it is known or thought of as being; both of which aspects have their only evidence in consciousness, though it is only the former, that is, its attributes and processes as they really exist, or their reality

as existents, independently of what we know or think them to be, which operate as real conditions of the consciousness which is the knowledge of both aspects, as well as of itself.—Our analysis has in fact shown the addition of a new kind or mode of reality, the reality of real conditions which do not consist of consciousness, to those which have been previously made known to us as objects thought of and objective thoughts; that is to say, it has supplied us with a real and positively known content for our previously abstract conception of real condition, by identifying attributes and processes of real matter, exclusive of consciousness, with that previously abstract conception.

Observe, too, that groups of real conditions, *i.e.*, of molecules in motion, which have now taken the place of material objects thought of, such as the bell, have not lost the reality which they inherit, in order of constructive thought, from those real objects thought of. Any such group is an object of consciousness just as the real bell was, though it does not itself consist of presentations and representations combined, but is the object of pure representation only. And its reality in this sense is unaffected, because, though not presented, its molecules and their motions are necessarily thought of as capable of being presentatively perceived, if the conditions on the part of the real percipient should be correspondingly altered, and if suitable media for inter-action between the two factors, in their changed state, should also be provided. A real existent is not less real when it is thought of, than when it is presented, as real; it is only less evident. Its degree of obtru-

siveness is altered, not its reality. Degrees of reality, in the objective sense of the term, are an impossibility. On the contrary, so far from any degree of reality being lost, a new mode of reality is assumed by real objects thought of, concurrently with their ceasing to be presentations. As real conditions they possess what in common-sense phrase is called a capacity or power of having conditionates depending on them, and of acting on, and being acted on by, other real conditions, with which latter they stand in a relation of reciprocal dependence, or of condition and conditionate at once. The scientific conceptions of agent, agency, action, and their correlates, have their root in this added mode of reality.

Here it is seen, in what the limits to the process of subjectification consist, limits which were spoken of above. We are compelled to think of or represent real conditions on the type offered by real objects thought of. The foundation of their conception is laid in the material objects, from the perception of which we arrived, by the process now analysed, at the added mode of reality which we attribute to them in their new form of real conditions. That is to say, we cannot get beyond or behind material solids, in thinking of real conditions positively. In the last resort, then, we come back to the original conception of objective thoughts being copies or duplicates of the objects thought of by them; only that in the later of the two cases we reverse the direction in which our thought moves, attaining the reality or real existent, of which our representation is a duplicate, from the side and by means of the representation, which is now first in

the order of knowledge strictly taken, whereas in the former case we attained the representation by previous acquaintance with the real existent, namely, the real object presented in sight and touch together, which perceptions were the first steps in the order of genesis of our knowledge as a whole.

This change of direction in the process of knowing, that is, the direction in which our objective thought moves with reference to the realities thought of, is a most important turning point in its development. Taken in conjunction with the fact brought out in Chapter VII., § 2, that pure representation is the first mode of consciousness to be perceived distinctively as consciousness, it may not improbably have suggested to Kant his transcendental doctrine of cognition being due to thought working on sense-material under *a priori* forms, a doctrine which Hegel pushed to its limit in his doctrine of the creative energy of Thought itself, working solely under the laws of Logic. But not to insist on this, it is clear that we take a new start, and enter on a new and fruitful stage of experience, when we begin with pure representations of objects which we take as real, notwithstanding that they are, to ourselves with our limited range of sensitivities, capable of being objects of pure representation only, and not of presentation. For we then take our stand on already acquired knowledge, and treat its objects thought of as indisputably real, though always capable of being known better, that is, more accurately and more completely, by means of continued thought, than at any given stage of our knowledge of them.

Nevertheless it is always impossible to transcend the limits, which are imposed on these processes of purely representational thought by the actual experience out of which the pure representations, which are their starting points, have arisen. We cannot transcend the conception of a material reality, in framing any positive conception whatever of a real condition. And the fact remains standing, that our last image of material reality, a reality which is a real condition, is the same in essential kind as our first. We have to think of a material molecule, atom, or other ultimate, as possibly perceivable in the same way as a larger solid; the essence of which way, showing it to be ultimate, is, that a real solid as originally experienced occupies exactly the same space, and for the same time, as the combined perceptions of sight and touch originally occupy, which are the presentative part of its perception. It is in virtue of this, that, as noted above, we perceive the real object as distinguished into two inseparable aspects, the real object as in existence and the same real object as in consciousness, an object whose *esse* is *percipi*. Approaching from the purely representational side, we now class real conditions among objects which must be thought of in the very same way as larger solids, that is to say, as objects thought of, the reality of which, if capable of presentation, would in presentation be identical, in quality, duration, and extension, with the perception of them.

This conception of Matter as real condition, or rather as consisting of parts which are real conditions, brings us to the end of our tether, so far as any positive knowledge of it is possible to us.

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Beyond it, we are left standing, as it were, in presence of some unknown and unimaginable real condition of the ultimate constitution of matter as a real existent and real condition; or in other words, in presence of some positively unknowable real condition of the fact that matter exists as we must think it does exist, namely, in some form or forms which would be actually both visible and tangible, if we had sensibilities sufficiently acute to perceive it under them. We have to think of the real conditions operative in the matter which we actually and presentatively perceive, as being themselves material, being objects thought of by objective thoughts which, though purely representational, are yet derived ultimately from presentations. The fact that they so exist and operate, namely, as real conditions, is the deepest and last-reached fact attainable by positive knowledge in this direction, a fact for which no cause or real condition can be positively imagined. It is a fact, the real reason or ground of which is wholly unknown to us, and certainly does not carry in itself its own explanation.

The analysis of matter as an objective and operative reality, when it thus reaches its utmost limits in the conception of it as composed of material real conditions, leaves us with the question of real condition, when put concerning matter itself, or as a whole kind or mode of real existence, entirely unanswered. We have seen how that question arose out of the perceived difference between representations of desired objects and obtaining presentations of them, and how the answer to it involved the conception of matter as consisting of real conditions.

The conception of real condition being thus rooted in facts of experience generally, and especially in that part of them which constitutes human nature, cannot be disavowed, retracted, or ignored, when the same question, namely, the question *what makes*, or *how comes*, is put concerning matter itself as composed of material real conditions, and no further positive answer to it can be given. The question does not cease to be a question, because the answer makes default. Hence it is that, just as we necessarily conceive the unpresented interior of presented material objects as composed of objects which, in their own nature, are capable of presentation, so also we necessarily represent the unknown existence, which would be or contain the answer to our question *how comes*, or *what makes*, matter itself, as holding the position of real condition with respect to it, and so bring that unknown existence under the general conception of an operative real condition, though all we know of it is, that it is not material, nor its mode of operation physical. An Unknown Power is all that we can say of it; but an Unknown Power is what we must say of it, since thus much is involved in our unavoidable way of thinking even of the material world.

Next let us turn to the pure representations of material objects thought of, which it will be remembered are the first modes of consciousness to be recognised as separable from the objects thought of by them. Our analysis has now shown us, that all modes of consciousness are in the same case, unless the objects thought of by them should

be those neural or cerebral processes upon which the consciousness immediately depends for its existence. For it has now been shown how and why it is, that all modes of consciousness, in its whole range, including presentations as well as representations, are and must be classed as consciousness, in contradistinction from the molecules and processes of matter, which are not consciousness, but are objectified and known as real conditions, proximate or remote, of its coming into existence in individual Subjects. It is the real existence of the molecules and processes of matter which operates as the real condition of the existence of consciousness in material Subjects; or in other words, consciousness as an existent is the conditionate of really existing matter.

The point to be noticed again in this connection is, that it is only the existence of consciousness, not its *whatness*, quality, or content, which is conditioned upon matter. It is of course true, that without existing it can have no *whatness*, quality, or content; these are what it is *known as*, and are the evidence of its existence. But it is its existence, not its *whatness*, which is immediately conditioned upon the agency of matter as its real condition. Real Conditioning is a term which applies only to the *Ordo Existendi*, the order of genesis and real history. No imaginable real condition can account for the nature of what we call awareness, that is, of consciousness, among other natures in the universe of things; still less for its specific qualities or *whatnesses*. It is only their existence, occurrence, or continuance, that is conditioned upon matter. They are, it is true, first in

order of knowledge, but since all knowledge is reflective, their existence must be thought of as first in order of genesis. No attribute of matter, say its primary properties of hardness or resistance, can explain the specific quality of immediate tactual perceptions. It is these on the contrary which give us our knowledge of the corresponding attributes of matter. Matter, taken as known by their means, accounts for their coming into existence as perceptions, but not for their being the specific perceptions which they are, when they do come.

Therefore, just as in the case of matter, so also in the case of consciousness, a line of demarcation passes (figuratively speaking) right through the middle of every state or process of consciousness, distinguishing its subjective aspect as a knowing from its objective aspect as an existent, in which latter aspect it is conditioned upon the play of some portion or portions of the material world. I mean, its existence depends upon that play; its nature, or what it tells us, the quality of its content, is its own. The same is true of consciousness in its totality, only here with the difference, that beyond the range of its subjective aspect, that is, of knowing in its utmost generality, there is nothing,—since the conception *Nothing* is within it, being part of its conceptual equipment,—while in its objective aspect, or as an existent, it is conditioned (like every part of it) upon the groups of real conditions, which constitute a finite Subject and the material environment with which he is in relation; and these are its real conditions, or conditions *existendi*. It is individual and finite in

its existent aspect; all-embracing, by including the perception or idea of infinity, in its cognitive aspect.

This is the philosophical or metaphysical distinction between subjective and objective aspects in the case of consciousness, as before in the case of matter; and in both cases extracted from, and contrasted with, the psychological distinction of aspects, which, although called subjective and objective respectively, are yet not strictly speaking aspects at all, but opposite members of a relation not completely reciprocal, namely, that of condition and conditionate. And it leads us back, as we might expect, to the result of our analysis of consciousness in its lowest terms, in the simplest possible cases of reflective perception, in our early Chapters. For consciousness was there seen as something which was always in process of becoming objective to itself, the fact of its so becoming being its existent character, and its content in so becoming being of itself a knowing. We cannot have the fact without its content, nor the content without its fact. What we now see in addition is, that, when we take consciousness as an existent, that is, in one only of its inseparable aspects, we necessarily take it as a conditionate also; and when we take it as a conditionate or existent, we also take it as a knowing or content, since otherwise there would be nothing to take. And this last remark also makes it evident, that, while in the order of genesis, or in consciousness considered as a forward-moving process, the existence and the content of any and every portion of it are strictly simultaneous, yet, in the order of knowledge, the

perception of the content of any portion is always prior to the perception of its existence; inasmuch as this order is retrospective, and in retrospection the perception of "nothing," or no-content, is impossible, being one and the same thing with no-perception.

But here we must be careful not to confuse these two inseparable aspects, even while we are distinguishing them. The real conditions of consciousness (which when taken as an existent is *eo ipso* taken as a conditionate) only condition it in that character. That is to say, they condition its *thatness*, the fact of the appearance and combination of its states and processes, their order and arrangement; they do not condition its *whatness*, except so far as that *whatness* depends upon the combination, by association or otherwise, of what has previously appeared. Ultimately, that is, apart from characteristics which depend on, or consist of, associative order and arrangement, the specific content of consciousness is independent of material real conditions. It is inexplicable, because an ultimate datum. The specific quality of such feelings as those of light, colour, sound, taste, odour, hardness, effort, pleasure, pain; and also (be it noted) of their formal co-elements, time-duration, and spatial extension; and probably also of the more elementary emotions, such as hope, fear, wonder, love, and anger; not to speak of the nature of consciousness itself, as simple awareness, if it is logically permissible to speak of the nature of what, from having no similar, cannot be classed; —all this is something which cannot be accounted for by any collocation of material atoms, or by any

hypothesis as to the nature of matter. These specific qualities, of form as well as feeling, are the ultimate and therefore inexplicable data of all human knowledge, and therefore of all that calls itself explanation. It is only the fact of their occurring (when they do occur), and the fact of their occurring in this or that connection, which material real conditions can explain. Their nature, and that of consciousness, of which they are the content, is the foundation of our whole knowledge of material existence. And this is the meaning of the philosophical doctrine, that experience is the sole ultimate foundation of all knowledge and legitimate speculation. It is impossible to give a reason for experience, because it is only from experience that any reason can be drawn.

Thus the *whatness* or nature of consciousness (which as we have seen includes the specific *whatness* of everything we can think of) is not only incapable of being thought of as conditioned, but it is incapable even of being questioned, however much we may endeavour to do so. For even in putting the question we must accept it as known, questioning being itself a mode of consciousness. This shows the futility of imagining a specific immaterial agent, Mind, Soul, or Ego, to account for the specific nature of consciousness as distinguished from matter. The device is nothing more than repeating the thing to be accounted for, and imagining it, so repeated, as an existent.[1] The same objection applies equally to the device of

[1] That this criticism is not applicable, as some might suppose, to the primary properties of matter, on the ground that they are duplicates of immediate tactual perceptions, has been shown above, in the first part of the present Section.

ascribing agency to the nature of consciousness immediately, that is, without interposing an immaterial substance. There is not only no evidence that the nature of consciousness is to be *causa sui*, but the idea of it is forbidden by the fact, that this nature, as the ultimate datum of all knowledge, must be taken as itself inexplicable. It is equally futile to regard *Begriff* as the generator of *Geist*, and to regard *Geist* as the generator of *Begriff*. Empty, verbal, Scholastic formulas both; one belonging to the earlier theistic, the other to the later pantheistic period of Scholasticism.

Thirdly, to compare the results of the two foregoing lines of enquiry. The discovery of real conditions, both in the percipient and in the real objects perceived, has forced us to the conclusion, that whatever is positively known as conditioning is matter, and whatever is positively known as conditioned, without in turn conditioning, is consciousness. For all the attributes of real objects perceived in presentation and representation together belong to their *whatness*, and as such are modes of consciousness, while the pure representations of them, which appeared as their faint duplicates, were taken and must be taken as modes of consciousness to begin with. Thenceforward we have before us a world which is necessarily conceived as consisting of real conditions and their conditionates; and the only known real conditions are necessarily conceived as material molecules in inter-action, the only known real conditionates, which are not material, are states and processes of consciousness. This is the new shape taken by the original distinction between objective

thought and object thought of, in consequence of the percipient's discovery of real conditions. And this moreover is that result of analysis to which we looked forward in § 1 of the present Chapter, when speaking of the validity of pure representations as evidence for real facts of past experience, even when those facts are not connected with them by an unbroken sequence of existent consciousness. In consequence of it we have no alternative but to conceive the material Subject as capable of pure representations which are true representations of actual presentative experience, even though that experience has not been his own; and therefore, that to establish the real existence of a train of real conditioning between such representations and such experiences is the necessarily valid, and the only valid, substitute for memory in the strictest sense, whenever in that strictest sense it makes default.

But when we bring this new psychological conception into comparison with the philosophical distinction between subjective and objective aspects, according to which everything without exception must be taken (1) as in consciousness, which is its subjective aspect, and (2) as in existence, which is its objective aspect, philosophically speaking, then a certain difference seems at first sight to be disclosed, according as we consider the real conditioning of the attributes of real objects, or that of states and processes of consciousness simply. In both cases, indeed, the conditionate is consciousness, but in the case of the attributes of real objects it is consciousness in its philosophically subjective aspect of a knowing, *i.e.*, a knowledge

of the real objects, while, in that of states and processes of consciousness itself, it is consciousness in its character of an existent, *i.e.*, its philosophically objective aspect, which seems to be the thing conditioned.

This apparent difference is noteworthy, one which demands and will repay elucidation. For it brings finally face to face the two contrasted distinctions, philosophical and psychological, with which we have been occupied; I mean the distinction between subjective and objective aspects as it and they are conceived in philosophy, and the very different distinction between subjective and objective aspects as it and they are conceived in psychology. In an earlier Chapter (II. § 5) we found by analysis, that reflective perception was a process of objectification taking place entirely within consciousness, irrespective of any idea or experience of real conditioning. And we then saw, that the moment of objectification gave us the distinction between the content, quality, or *whatness*, of whatever was perceived, and the fact of its existence as a perceived fact, which we called its *thatness*. And this distinction, so given, we saw was common to the whole of experience, and all its parts.

Now it is this existent character in the time-stream of consciousness, perceived or perceivable in every moment of objectification, which is conditioned upon matter, not the *whatness*, content, or quality (either of form or feeling), of the stream or any portion of it. The quality or *whatness* of consciousness in its ultimate data taken separately, *i.e.*, except so far as it depends upon the order in

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which those ultimate data are combined, is not so conditioned; and this belongs entirely to the subjective aspect of consciousness in the philosophical sense, that is, to consciousness in its character of a knowing, being the content of a perceiving process, notwithstanding that this also is objectified in the next following moment of experience. If, then, it is in the *whatness* of consciousness, as distinguished from its *thatness*, that its character as a knowing consists, and if the *whatness* of some of its ultimate perceptions is identical with the *whatness* of some of the essential attributes of material objects, it follows that the *whatness* of those attributes constitutes, or is essential to constitute, what philosophically speaking is the subjective aspect of material objects, or that which they are *known as being*.

But there is this difference. In the real material object the sense-perceived attributes spoken of are what the real object is *known as being*, while in the moment of perception they are the *knowing it*. They become opposed to themselves as a *knowing* and a *known* in the moment of perception, because that moment is a moment of objectification. When referred to the real material object as attributes, they have been already objectified in reflective perception. Objectifying is knowing, the subjective aspect of consciousness; the fact that we objectify and know it is its existent or objective character; and the perceptions objectified, and consequently their complexes, that is to say, the *whatnesses* of real material objects, are the subjective aspect of real objects, being parts of the subjective aspect of consciousness objectified. Neither kind of *whatness*,

then, but only the genesis of both, is conditioned upon matter; this genesis being that of the existence of consciousness in individual Subjects, or of consciousness as an existent, of which these *whatnesses* are the nature, quality, or content. Both *whatnesses* are originally *whatnesses* of an existent consciousness; and as the conditioning of that existent consciousness proceeds, and its *whatness*, content, or quality develops, that kind of it which we objectify and refer to real objects as their attributes, or subjective aspect, is thereby separated locally from that kind of it which is the perceiving and objectifying process itself, which is also the philosophically subjective aspect both of itself and of real objects as existents, and which is not separated locally from itself when objectified as an existent consciousness. The subjective aspect of real things is the objective aspect of states or process-contents of consciousness, when they have been objectified in reflective perception, and referred to existent realities which are not part of the Subject's consciousness as an existent.

We see, then, that both states of consciousness and real objects have in them, or are the bearers of, the two aspects subjective and objective, as these are understood by philosophy. But we have already seen that the distinction between subjective and objective aspects, as understood by psychology, is very different. Consciousness and real things are taken subjectively, or as *whatnesses*, in philosophy; of everything, even of existence, it is asked,—What is it known as? In psychology, on the contrary, existence is taken for granted, as already known, and both consciousness and real

things are taken as real existents. Whereupon consciousness, taken as an existent, seems itself to *be* the subjective aspect of real things (1) because it exists in a Subject real or supposed, and (2) because it contains a knowledge of things, if not as they really are, yet always as they really appear to that Subject. Thus, while philosophy distinguishes a subjective and an objective aspect in everything without exception, psychology takes the objective or existent aspect of consciousness to bring into correlation with the objective or existent aspect of a reality which is not consciousness. And this position and procedure on the part of psychology are, in their own place, perfectly legitimate, and spring directly, as we have seen above, from the nature of experience itself.

But there is a very great difference between the possible ways in which psychology may acquit itself of the task thus marked out for it. If it proceeds in conscious subordination to the philosophical distinction of aspects, and, when correlating consciousness with reality, takes both of them solely in their character as existents, leaving it to philosophy (from which the distinction originates) to follow up the correlation between consciousness as a knowing and reality as that which is known or knowable, it then remains within its true province as a positive science.

But two things follow from this, which is the only logical and philosophical procedure. First, the distinction between subjective and objective aspects is replaced, for psychology, by the distinction between real conditions and condition-ates, since no existent as such, that is, in that

character, can be the opposite aspect of another existent. And secondly, some real and positively conceivable existent or existents must be selected as the correlate of consciousness, either as its condition or its conditionate, or as both reciprocally. A large field is thus left open for hypothesis, subject only to the proviso, that the hypothesis adopted shall be positively conceivable, without which its scientific character would plainly be forfeited. The represented molecules of matter in interaction, spoken of above, would sufficiently fulfil this requirement.

Psychology, however, as it is most commonly understood and practised, does not proceed in conscious subordination to the philosophical distinction of aspects, but ignores and traverses it. Consciousness is taken now under one aspect, now under the other, as if both were one; and real objects in the same undiscriminating way. The consequence is, that psychology constantly finds itself grappling with philosophical questions which it has no means of solving, and which for it are logically unsurmountable, though self-created, difficulties. In the first place, neural processes can furnish no real account of the genesis of states of consciousness, sensations for instance, if the nature, quality, or *whatness* of those states is included in what it is proposed to account for; because this nature, which is consciousness in its character of subjective aspect of all things, includes the knowing of matter, and therefore of neural substance and process, as part and parcel of itself. Unless, therefore, we draw and abide by the philosophical distinction of aspects here contended

for, physiological psychology at any rate can give no account of the real genesis of sensations; but they must be referred to some agency, either in consciousness itself, or else of a non-phenomenal character; and physiological (which is the only scientific) psychology is thereby exploded. What is meant by matter in its existent aspect, which is its aspect as a real condition, will be seen in the following Book.

Secondly, if anything which is not consciousness is taken as the real condition or conditions upon which consciousness depends, but again without drawing the philosophical distinction of aspects, then those conditions, since the conception of them consists wholly of consciousness, are reduced to pure nothing, apart from what depends upon them, and become a contradiction if we attempt to conceive them as independent realities. Difficulties like these, which arise from neglecting a plain philosophical distinction, are occasionally met by some form of the "mind-stuff" hypothesis, or by the not less arrant piece of nonsense which asserts, that nerve-substance seen "from within" is seen as consciousness, while seen "from without" it is seen as nerve-substance. Usually, however, unphilosophic psychologists are more wary than this. Usually they dispose of their difficulties as a bankrupt of his liabilities, by assigning them over, with or without assets, to a man of straw in the shape of a science which is supposed to deal with "ultimate realities," and to establish confidential relations with things which exist "absolutely" or "in themselves." But the device is as hollow as the science which it appeals to is fictitious. For

myself, were I a psychologist, I should prefer basing my science on the results of an analytical Metaphysic, to suspending it on the illusions of a desperate Ontology. But this, I shall doubtless be told, is a metaphysician's prejudice.

Be this as it may, one thing is indisputable. Once let us draw and keep hold of the philosophical distinction between consciousness as an existent and consciousness as a knowing, that is, between its true objective and subjective aspects, and we see directly, that it is only when we think of consciousness as an existent, that we think of it as the conditionate of matter; and only when we think of matter as an existent, that we think of it as the real condition of consciousness. Consciousness as a knowing, whether of the attributes or of the existence of matter, or of its own states and their existence, is indeed an inseparable aspect of consciousness as an existent, but it is only in the latter character that it can be thought of as a conditionate. It is only by existing or coming to exist in particular Subjects that it becomes actual as a knowing; but as a knowing it is the subjective aspect of all existence whatever. Both our knowledge of the nature of consciousness, and our knowledge of the attributes of matter, are alike and in the same sense dependent for their existence, but not for their nature, quality, or *whatness*, upon the material real conditions, which give rise to the consciousnesses of individual living beings.

The true psychological distinction, to which we return in consequence of drawing and keeping hold of the above philosophical distinction, is the

following. The sense-perceptions and representations of all attributes of material objects belong to the order of knowledge or objective thought, and therefore to the *whatness* of consciousness, as distinguished from its *thatness* or existent character; and their *whatness* as attributes of material things is identical in point of kind, though not in point of locality, with their *whatness* as states of consciousness, or parts of objective thought. So far we are in pure philosophy. When we turn to their existence, we come to their real conditioning, and then we enter upon psychology and positive science. For, on putting the question of genesis,—how comes, or what makes,—and so tracing their historical existence back to its sources, we find that their first and originating source lies in their real material substrates, and consists of certain modes of the molecular constitution and activities of those substrates, that is, of those real objects, of the attributes of which they are perceptions. Secondly we find, that a second source consists in the constitution and activities of material media, affected by those of the first source, and in turn affecting what we may call their third source, namely, the molecular constitution and activities of certain parts of the nerve organism, which are their proximate real conditions as modes of consciousness; all these real conditions being objects of representation and thought only. But whatever the precise nature and properties of these real conditions may be, they must always be objects thought of by positive objective thoughts, the content of which, though it does not include, is yet ultimately derived from sense-perception or imme-

diate experience of material attributes; so that, on the one hand, our positive conception of real conditions can never transcend our conception of matter, and on the other, that positive conception, however far we may go in ascertaining its real content, must in every case bring us back to the metaphysical conception of opposite aspects, or of reality as the object thought of by objective thought.

Consequently we must say, speaking broadly, that the existence of the sense-perceived attributes of matter in their substrates is one thing; their existence in consciousness (which is their being perceived) is another; and their existence in their substrates is one of the real conditions of their being perceived or existing in consciousness. Looked at as existing in their substrates, they are nothing but those molecular or other physical activities in them, whatever they may be, which chiefly contribute to determine the existence of states or processes of consciousness in living organisms, the qualities of which we ascribe to those substrates as their attributes. Seen from the point of view of real existence, the existence of attributes in their substrates (in the sense explained) is quite independent of their existence as states of consciousness in percipient Subjects, though their existence as the latter is by no means independent of their existence as the former. The relation of dependence between them as existents is not reciprocal, and only seems to be so when we confuse their *whatness* with their character as *existents*.

Similarly with consciousness. Like matter, it cannot have *whatness* or qualities (which cor-

respond to attributes) without existing; it is only as and when existing that consciousness becomes an actual knowing, or subjective aspect of existence. In the order of existence, which is the order of genesis, the location of the existent determines that of the attributes;—the location of the attributes of existent matter in the one case, the location of the *whatness*, which is the knowing or subjective aspect, of existent consciousness in the other. Hence the duplicate location of what is identical in point of kind, the knowing of consciousness, the attributes in matter. But the *whatness* (which is the knowing) of consciousness is not itself determined by its genesis; it is only determined *to exist* here and now. The quality or kind of any ultimate sensation or feeling, or formal co-element of either, is not conditioned upon matter, or material activities; for in order that this should be so, it would at least be requisite, that the qualities, of which matter as real condition is the combination, should be qualities different in point of kind from any qualities of consciousness. And this we know is not always the case, but, as we have already seen, with some of them, in point of kind, they are identical. Those qualities which compose the ultimately conceivable constituents of real matter, or matter in its character of real condition, are only conceivable as modes of hardness and resistance, both of which are identical in point of kind with states or qualities of consciousness.

I conclude, then, that the philosophical distinctions between knowing and being, and between nature and genesis, which rest ultimately upon the

§ 5. Philosophical Conclusions from this Analysis.

analysis of reflective perception, are the only true guide to a logical and satisfactory constitution of positive science, and more especially of psychology, which stands nearest of all to philosophy; since all psychological questions relate primarily to the genesis and development of consciousness as an existent in conscious beings. A psychology which does not include these distinctions among its essential foundations is empiricism.

§ 6. The Panorama of Objective Thought.

§ 6. It is necessary in the next place, still following up the foregoing train of argument, to advert to the process by which the stream of consciousness as it actually occurs, in dependence upon the train of physical events which are its real condition, both in the brain of the Subject and in matter external to the brain, gets converted, moulded, or re-arranged, into an intelligible cognitive picture of existence in its entirety. We are thus in presence of the question which Kant answered by the hypothesis of pure forms or Categories supplied for that purpose by the faculties of pure Understanding and pure Reason from their own nature, and which Hegel converted into the question, How the activity of purely logical Thought, with no content save that involved in the most general and indeterminate concept, Being, could produce the apparently real world of Persons and Things, Actions and Events.

Now we have seen that every moment of consciousness in its historical order of occurrence, as an existent moment, has a subjective aspect or *whatness*, in virtue of which it contributes to the construction of that total cognitive picture. But the historical order of occurrence is not recognised

by the percipient, from the beginning of his experience, as in contrast with the cognitive order; nor indeed does his memory preserve it as an unbroken existent sequence of conscious states. On the contrary, portion after portion in succession, after occurring, drops below the threshold, and only its similars are afterwards really brought into consciousness by the brain mechanism, under appropriate stimulation, in processes which are inaccurately styled recurrences or revivals of the self-same portions. Moreover the process of modification goes on along with the occurrence of the stream itself, from, or perhaps in strictness very nearly from, the date of the stream's originating with the dawn of conscious life; and starts again, in cases of interruption, by periods of sleep for instance, from or very nearly from the moment of renewal of the current, or moment of awaking; to say nothing of changes in the current itself, which are introduced into the renewed current of consciousness, by brain action during the periods of its interruption. From this it follows, that what a percipient has before him, when he first begins to observe his own experience as such, is not the historical order in which it occurs, or has occurred, pure and simple, but the stream already modified into a more or less intelligible cognitive picture or succession of pictures. For him, the process of modification does not exist, until he has distinguished the sequences and co-existences of his sense-perceptions, as they actually occur, from the cognitive picture of the external material world, with which his examination begins, and of which he discovers that they are ingredients.

Now the moment which divides the modified from the unmodified stream is only in point of kind a single moment; in point of number it occurs perpetually, all along the historical course of experience. This moment is that of conscious re-action, or selective attention to process-contents of consciousness, which are brought into consciousness either by presentations, or by spontaneous, that is, non-voluntary redintegrations. Whenever such a moment occurs, a partial modification, or reduction of the then existing stream to a comparatively more intelligible order, takes place. There is thus but one historical order of the occurrence of experience, and it is one in which spontaneous and voluntary processes go on alternately and in conjunction, the spontaneous ones offering a pabulum to the voluntary, and being thus, as it were, the material out of which the cognitive picture, which results from the re-action, is constructed.

Again, when we speak of the cognitive picture which results from the re-action, it must be remembered, that, as the moments of re-action are not one, but many, perpetually occurring, and are re-actions upon a perpetually varying material, so the cognitive pictures which result are many also, containing different portions of the whole possible universe of thought, yet all capable of being referred to such a total universe, which is itself but one, though the most comprehensive, of those cognitive pictures. When the panorama of objective thought is spoken of, it is this indefinite number of cognitive pictures, contributing to build up the one most comprehensive, and at the same time most richly furnished content of consciousness

possible to thought, which is or ought to be intended by the phrase. At the same time all these cognitive pictures arise successively in, and are parts of, that one historical order of experience, to which the material, of which they are modifications, also belongs. Later pictures are thus modifications of earlier ones, as well as of the wholly unmodified material; and the whole stream, in both its parts, the modified and the unmodified alike, is the dependent concomitant of neuro-cerebral processes, which are what have been called above its proximate real conditions. The brain is a comparatively permanent group of interconnected organs, and the processes which take place in it form a complex group of physical changes, simultaneous and successive, upon which the time-stream of consciousness, with its corresponding changes, depends.

Accordingly, what we find in our experience, at and from the moment of beginning to observe our own consciousness, is always some cognitive picture, some part or parts of the modified stream of consciousness, out of which we arrive at a knowledge of the unmodified stream only by means of analysis. The several steps which have been described, in this and the four preceding Chapters, as if they were steps in a percipient's construction of the world of common-sense objects, are really steps in our analysis of that world, taken in reverse order; for the reason that it is often impossible, in the case of complex precepts the formation of which is partly due to association, to show the actual priority, in order of genesis, of the perceptions of one kind to those of another, the

whole complex percept being only offered for analysis after the completion of the associative process. And it will be remembered, that the reflective or retrospective order of perception, to which analysis belongs, was from the outset distinguished provisionally from the historical order of genesis, or actual acquisition of perceptions and of knowledge. I refer to Chapter II., § 5. *Reflective Perception*, where it was also stated, that the knowledge of the historical order of genesis or acquisition of knowledge, as distinguished from the reflective order, depended on the perception of consciousness as an existent, that is, as the con-consciousness of a really existing Percipient or Subject.

It has now been shown how both these cognitions have been acquired, and how they are justified by facts of actual experience. Nevertheless this only brings out more clearly the inadequacy of analysis to the task of discovering, or reconstructing in thought, the actual course of the historical genesis of our knowledge. That is to say, analysis discovers the existence of a number of trains of events, which are beyond its own domain, and the order of which is discoverable only, if at all, by way of psychological hypothesis and verification. In the case of all complex objects into which association enters, analysis avails only to show what their constituents are, and how they stand related to each other in combination, not the steps by which their combination was historically effected. It is only in this sense that we have been able to show what the essential moments were which together contributed to the total picture of the

material world; how, for instance, it was, that our percipient came to distinguish visual from tactual perceptions, as the essential constituents, when combined by association, of solid material objects, and again how he came to distinguish his own consciouness from its objects generally, namely, by its occurring in the form of a representational copy, separable from the objects which it represented, thus yielding the experience of real objects in contrast to the thought of them.

From this it was shown, still keeping within the limits of analysis, how he would arrive, by a reflective, conceptual, and reasoning process, at the idea of real conditions in the supposed real object, and in his own body, producing between them the perception which he had previously taken to be the real object itself. And this idea necessarily leads him in the next place to the conclusion, that sense-presentations are aroused in him by the action of real conditions external to his body upon real conditions within his body, the origination of which he failed to note at the time they were aroused.

Sense-presentations are one instance of what I have called the unmodified stream of experience. And the same is likewise the case with the non-voluntary associations, which take place between two or more portions of the stream of consciousness, depending upon cerebral processes. These unmodified processes of consciousness, I mean unmodified by selective or volitional re-action, can be observed to exist in the actual perception of common-sense objects, when once our attention is directed to examine it, and can therein be clearly distinguished from the modifications introduced by

voluntary acts of questioning and inference. Thus even now, after the construction of our common-sense world of objects in thought, unmodified processes are pre-supposed as the material of further cognitions acquired by attention and reasoning, cognitions which are modifications of that material. Nothing more than this, but also nothing less, is requisite to account for the original formation of our perception of the world of common-sense objects. It clearly does not come to us originally in that form in which we find it, when we first begin to examine it philosophically; because, whenever we so examine it, as actually experienced, it breaks up into the two processes described, the unmodified and the modified, the former of which is the pre-existing material of the latter.

From the beginning to the end of a life's experience, we have thus some picture in consciousness which may be called cognitive, for even the rudest and lowest process-content of unmodified consciousness is an empirical moment, that is, has distinguishable but inseparable elements, whereby it is related to others and becomes a positive component of our total knowledge. It is in fact an undeveloped and incomplete knowing, just as the total panorama of objective thought is a comparatively developed and complete one. We had an instance of such lowest empirical experiences in the simple sounds with which our analysis began. The whole series also is woven of consciousness throughout, having all its members related more or less closely to one another, and in this sense is entirely homogeneous, notwithstanding that the

figurative terms *picture* and *panorama* are not equally apposite descriptions of all its parts, and least of all to those perceptions which occupy time alone, until they have been taken up into a spatially derived cognition. Considered in this character of cognition, or series of cognitions, modifying one another, and related together as parts of a single whole of knowledge, the whole series is taken in abstraction from the number of times any member or members of it may have been repeated, or rather similars of them may have occurred; and this also involves abstracting from the historical order in which, as a fact, it has occurred; the place and function of those members, in respect of others related to them, or of the whole cognitive picture, being then alone regarded.

What we have before us, then, as the result of these considerations, is, first, the whole order of neuro-cerebral processes conditioning the whole historical order of our consciousness, and secondly that total stream of consciousness, which is its dependent concomitant. But this total stream of consciousness, again, we are compelled to regard in two very different ways, (1) as a single but complex stream following the changes in the stream of neuro-cerebral processes which proximately condition it, and therefore subject to interruptions dependent on certain periodic states of the organism, and (2) as a series of cognitive and intelligible pictures of reality, together forming the total panorama of objective thought. In the first of these two ways of taking the stream of consciousness, we bring it into connection with its proximate real conditions, abstracting from its

relation to its objects thought of; in the second we connect it with its objects thought of, abstracting from its relation to its real conditions. And of these two ways, the first shows the genesis and formation of that total panorama of objective thought, which is the object-matter of the second, and which is, or includes within it, all that we mean by experience. The order in which the experiences of a life-time occur historically is one thing, and the order in which they combine to form an intelligible cognition of the universe, or any part of it, is another. But since the latter order belongs, and is composed only of parts which belong or have belonged, to the former, the existence of the former is clearly required and presupposed by it. The historical order of consciousness is thus what I have called above a positive antecedent condition of its cognitive order.

Moreover, we can now see the explanation of that phenomenon which seemed so great a paradox in our first analysis of reflective perception, in Chapter II., § 5; I mean the two contrary directions apparently taken, at the same time, by the same single stream of consciousness; the one being the historical order of its genesis, portion after portion, in a forward direction, or as if it were moving into the future, and the other being the order of its cognition, in which it seemed moving in a backward direction, or into the past of memory. For in the first place it has been shown, in Chapter III., § 3, that the first suggestion of time future, involved in anticipation of future experiences, arises in the phenomenon of expectant attention; and now it has been shown, that the

truth of this expectation, that is, of anticipated experiences becoming actual or present, rests on the same set of real conditions as the reality both of present experience, and also of experiences which are past, and seen in retrospection only. I mean, that all alike rest on the existence of the world of material objects, and among these of the Percipient or Subject, as their real conditions, either proximate or remote. For instance, in the case of external sense-perceptions, both the Subject's organism, and material objects external to it, are conceived as existing previously to those movements, set up by the latter in the former, upon which, and upon changes in which, sense-perceptions and their changes are respectively dependent concomitants.

The play of these real conditions we think of as necessarily first preceding, and then accompanying, first the genesis and then the continuance of that series of process-contents of consciousness, which at once depends upon them, and, when looked back upon, is our knowledge of them. As depending upon them, that series moves in one and the same direction with them ; and their direction is from past to future, because they are thought of as the real conditions of the genesis and duration of each successive present moment of consciousness, as it rises above the threshold, in its character of existent, and therefore as existing previously to each successive moment in the historical order of existence. As a knowledge of them, on the other hand, the series moves in the contrary direction, because the content of the successive present moments composing it is seen only in retrospect,

that is, as the content of some actually present moment retained or reproduced therein from what we call the stores of memory. And the two directions themselves, as well as the two orders, of Real Conditioning and of Knowledge, to which they are respectively assigned, are perceived and distinguished only by present moments of consciousness in their character of a Knowing, that is, of reflective perception or retrospection.—The sum of the matter is this. In the order of knowledge, process-contents of consciousness are taken as the content, more or less complex, of single present moments, before the historical order of their occurrence, and consequently before the real conditions determining that historical order, are enquired into. When the fact of their coming into existence in a certain historical order, and the fact of its dependence upon the play of real conditions, have been ascertained by analysis belonging to the order of knowledge, then the whole real order of existence is thought of (in moments forming part of the order of knowledge) as consisting of the play of real conditions, some portions or kinds of which give rise to, and determine the historical order of, those process-contents of consciousness, from which the knowledge of them is derived. Accordingly, the discovery of the Order of Real Conditioning completes the explanation of the two orders or directions, which are originally observed by reflective perception in the stream of consciousness as a whole.

Thus it is, that the world of Real Conditions, and the play of their actions and re-actions with one another, are thought of in retrospective cognition as entirely independent of our perception or know-

ledge of it or them. They are thought of as existing independently of the consciousness, the existence of which is conditioned on the activities of certain portions of them. But the consciousness, the existence of which is thought of as so conditioned, cannot also be thought of as existing independently of them, nor yet as reciprocally conditioning their existence. For, as we have just seen, it is to their previous existence that its very origination as an existent is conceived to be owing. Not so with consciousness (in all its modes) taken simply as a content, abstracting from its existence. But on the contrary, here all existence whatever, so far as the word has any meaning in it, is conditioned upon consciousness. In other words, consciousness, not existence, is first in the Order of Knowledge.

Retrospective cognition must therefore think of itself also as dependent for its existence, first, upon the world of real conditions, and secondly upon the genesis and existence of the consciousness which is conditioned upon it. Retrospective cognition is thus forced to admit two distinctive orders or domains of Real Conditioning; first, that of real conditions interacting with one another, secondly that of the conditioning of consciousness by that interaction. But this admission goes no farther than to the existence of those domains or orders. In answer to the question, *what* those domains or orders are, *what* it is which is admitted to exist, retrospective cognition has but one answer to give, and that a very different one, an answer which it derives from perception of its own content, quality, or *whatness*, taken simply as a process-content of consciousness. That is its ultimate source of infor-

mation, and the only ultimate source which is possible or conceivable. Appealing to that is appealing to experience. Short of appealing to that, appealing to experience is an empty phrase. The meaning of the term *existence* itself is determined by it, as well as that of all other terms which may be employed in denotation or connotation of phenomena of every kind.

Three distinct Orders, of thought and of existence, may thus be exhibited as our final result:—

I. The Order *existendi vel fiendi* of Matter, including that of our own neuro-cerebral processes, which latter is the proximate real condition of our consciousness; — the Cosmic Order of Real Conditioning.

II. The Order *existendi vel fiendi* of our Consciousness, in dependence on those neuro-cerebral processes; — the Psychological Order.

III. The Order *cognoscendi* of Existence generally;—the Cognitive or Philosophical Order.

Of this last Order the several sciences, both positive and practical, are in a certain sense departments, that is to say, so far and inasmuch as they are systems of methodically pursued knowledge, and are based upon conceptions or hypotheses, which can be justified and rendered intelligible only by being referred to this universal Order.

§ 7. I proceed to make some few remarks in elucidation and confirmation of the preceding deduction, which could not well have been intro-

§ 7. The Real Conditioning of Consciousness.

duced in the course of it. And in the first place, going back to the two great classes of existents with which we began, states or rather process-contents of consciousness and material objects, it is evident from the analysis, that the process-contents of consciousness are conditionates of certain material objects and actions, but no possibility has been disclosed of their ever being real conditions of them. Neural and cerebral processes, of the same general kind as those which condition external presentative perceptions, as they are called, plainly, when continued in the organism, condition the association of them. And if they condition associations, they can hardly fail to condition process-contents of consciousness of every other kind whatever; internal sensations as well as external, pleasure and pain, desires, emotions, imaginations, volitions, conceptions, and reasonings. This at any rate is by far the most probable opinion, in the absence of any distinct evidence to the contrary, to say nothing of the positive evidence, of the most varied kinds, which experiment and observation are every day accumulating in favour of it. Volitions, reasonings, desires, and so on, convey of themselves no information whatever as to how they are conditioned, or what the agent or agency is, by which they move. The whole real conditioning, therefore, in the world, so far as we have any positive knowledge of it, lies on the side of Matter, and consists in material objects and their changes relatively to one another. Consciousness, on the other hand, is a conditionate of some of these objects and changes, concomitant indeed with the latter, but still dependent on them. It is never an

operative or effective link in the chain, network, series or combination of changes, of real conditioning.

Secondly it follows, that material things and their parts or molecules act and re-act, as it is called, on one another, or, as it may also be expressed, are the seat of forces determining their configuration from time to time; and this, whether they are or are not of a nature to be actually perceived by our senses, or are only cognised by inference as material. In the phraseology here adopted, they are mutually real conditions and conditionates *inter se*. Material things thus admit of two independent analysis, one in their character of real conditions and conditionates, which is an analysis into parts, molecules, atoms, configurations, tensions, modes of motion, and so on; and the other in their character of objects thought of, which is an analysis into the perceptions and combinations of perceptions, of which the objective thoughts or ideas of them are composed. It has often occurred to me, that this double capacity of analysis on the part of Matter would offer a commanding point of departure, from which to initiate a philosophical survey of the whole field of experience.

Thirdly it follows from the two foregoing observations, that process-contents of consciousness do not stand in any relation of real conditioning to one another. It is not pleasure or pain, for instance, which conditions desire or aversion; nor is it desire which conditions volition or reasoning; but the neural or cerebral actions, which condition the antecedents, condition, in their continuation, the consequents also. Nor again do sensations, desires,

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imaginations, reasonings, or volitions, condition outgoing neural or muscular action; it is again the neural or cerebral action, conditioning these process-contents of consciousness, which, in its continuation, conditions the overt action said to flow from them. We speak, indeed, as if sensation prompted desire, and desire volition, and volition overt action; but that is because we have no names or other marks, by which to denote and describe the specific neural or cerebral actions concerned, save names or marks taken from the process-contents of consciousness which are their dependent concomitants. The latter are the evidence of the former, and when we attribute agency to the latter, it is, or ought to be, by the acknowledged figure of speech known as *pars pro toto*. The "conscious agent" which common sense does not analyse, and which we all feel that we *are*, is thus, in what is at once physiological and philosophical psychology, analysed into two component parts, the really conditioning neural and cerebral processes, and the process-contents of consciousness which accompany and depend upon them.

This analysis, supposing it to be sound, by no means destroys, but on the contrary justifies, the above perception of common sense. What it destroys is the pretension of that perception to be unanalysable and ultimate. If the common-sense perception really contained, as by some it is supposed to do, an immediate intuition of an immaterial agent, the case would be different; since it is precisely the supposed immediateness of the intuition (so-called) which supports its pretension to be ultimate and unanalysable. But in reality no

immediate intuition or perception of anything as an agent is possible. The perception of an agent, and the perception that he or it is an agent, may indeed be combined in one perception, but their combination is inconsistent with the immediate character of the perception as a whole, since one of its components depends on the intervention of a conceptual process. And this holds good as much in the case of a supposed immaterial agent, as in that of a material one. There is, therefore, no such intuition to analyse; it is an empiricist's mistake, due to misreading the common-sense perception of Self. What is really immediate therein is the distinct perception of process-contents of consciousness, with a blank for the agency on which they depend. That this blank is filled up by neural and cerebral processes, which are not perceived in their concomitant process-contents of consciousness, but inferred afterwards in moments depending upon other cerebral processes, is as much in harmony with the actual experience, as if the blank were filled up by the action of an immaterial agent.

Nor can it be said that this result degrades or destroys the spiritual nature of man. The whole worth and dignity, or the reverse, of man's nature and action, as estimated by himself, consist in the consciousness, which is the evidence of the conditioning agency; and it is solely by reflection from the consciousness that the conditioning agency can be said to have worth or dignity at all. A material agency and an immaterial agency, then, taken *per se*, stand on precisely the same footing as to dignity and value. That we habitually, and all but indissolubly, associate man's spiritual nature with the

idea of an immaterial agent, is easy to account for as a fact, but difficult to justify on analytical grounds. When we ask what an immaterial agent *is*, as distinguished from what it is supposed to *do*, the answer always consists of a "don't know," or a "can't conceive," or else (if an attempt at conceiving is made) of negative attributes, like the term *immaterial* itself.

In considering the real conditioning of consciousness, then, we are restricted by the limitations of our positive knowledge from travelling beyond matter in search of it. But this must not be taken to imply, either that our present knowledge of the nature and capabilities of matter and material processes is exhaustive of the reality, or that there are none but material agencies at work, though we can form no positive conception of their nature. It is not asserted that Matter is the cause of consciousness, in the Scholastic sense of the term *cause*; but only that matter and material processes are the only positively known real conditions of its existence in individual Subjects. To think of Matter as the Cause of consciousness, in the Scholastic sense of the term *cause*, would be philosophical Materialism, and utterly futile as an explanatory theory. For since a Cause is supposed to account for its effect as a whole, including its nature as well as its existence, the nature of the effect, consciousness, must be read back into its supposed cause, matter; that is, matter must be conceived as of itself possessing *eminenter*, or in some transcendental way, that which it is supposed to originate. In short, philosophical, as distinguished from psychological, Materialism is but a particular instance of those verbal explanations, by which nothing is explained.

Neither does the restriction just spoken of as imposed by the limitations of our positive knowledge involve the assertion, that matter and material processes are unconditioned. They not only may but must be conceived as dependent upon real conditions antecedent or co-existent, or both; that is, upon the existence of a real world, or worlds, which are not material, but the nature of which is not positively conceivable by us, the moment real conditions are taken in the sense here contended for, that is, as distinguished from Causes. For matter, taken in its character of real condition, as will be seen more fully in the following Book, is a composite existent, the constituents of which can be conceived as empirical percepts, existing separately from each other, though it is only in combination that they can be thought of as matter.

It is therefore open to question in respect of its genesis as a composite substance; whereby it stands in striking contrast to those composites the constituents of which are incapable of being conceived apart, such as are the ultimate data or lowest empirical facts of consciousness, concerning the genesis of which as composites no question (except verbally) can possibly be put. But any real condition, in respect of the genesis of which as a composite a question is possible, is *eo ipso* shown to be conditioned in order of existence. For not to be conditioned in order of existence is to exist eternally; and to exist eternally is to exist necessarily; and to exist necessarily is to exist beyond the possibility of question in respect of genesis. It is therefore impossible to conceive matter existing as a real condition, without con-

ceiving its existence dependent upon some other real condition which is not material, however incapable we may be of forming a positive conception of the nature of that real condition, or of conceiving any real condition as itself unconditioned, eternal, or necessary.

There is one more point which must be mentioned in connection with the real conditioning of consciousness, before we quit the subject. Many writers are in the habit of speaking of states and processes of consciousness, and the neural or cerebral processes on which they depend, as opposite aspects of one another, or as being one and the same process seen on different sides. Nothing can more clearly indicate, or more surely promote, confusion of ideas than this language. Its incorrectness will, I think, be obvious to those who may have followed the course of the present analysis. It confuses the relation of real condition and conditionate with that of objective and subjective aspects. Consciousness is the conditionate of neural process, not its subjective aspect. As for instance, a visual perception is the dependent concomitant of motions in the optic nerve and sensory centre. Without the motions, the perception would not arise.[1]

But perhaps it will be said, has not everything its subjective aspect in consciousness, and the neural process among the rest? This is true. But what is the subjective aspect of the motions in the optic nerve and brain centre, which condition the visual perception we speak of? It is our objective

[1] This whole question was argued at length in my *Philosophy of Reflection*, Book III., Chap. VII.

thought, yours or mine, of those objects as their object thought of. It is not the visual perception which we are speaking of, and which is their dependent concomitant. And again, what is the objective aspect of this same visual perception? It is the patch of light or colour perceived as located in space external to the eye. To confuse these plain distinctions seems to serve no other purpose than that of enabling charlatans (if there be such folk) to play the chameleon (if there is such a creature), according as they find themselves in the company of Idealists, or in the company of Materialists. True, the terms *idealist* and *materialist* have no significance in philosophy, when its province is truly conceived and demarcated; but they have a distinct significance, and are mutually exclusive, in its psychological department. And here it is, that confusing them is to be deprecated.

§ 8. Reality in the fullest sense. —The Four Senses of the term.

§ 8. One result of our analysis still remains to be noticed.[1] It has established a broad distinction between two classes of existents, quite irrespective of the more specific kinds of existents which may fall, or be imagined to fall, under each. On the one hand we have those existents which are real conditions as well as conditionates, and on the other those existents which are conditionates only. All the agency in the universe, all the efficiency, all that used to be called *causality*, belongs to existents of the first of these two classes. The having or not

[1] On the subject of the present Section I would refer to my fourth Presidential Address to the Aristotelian Society (Oct. 1883), *The Two Senses of Reality*, printed for private circulation, and to a Note bearing the same title, appended to my seventh Address to the same Society, in Nov. 1886, *The Re-organisation of Philosophy*, published by Messrs. Williams and Norgate in that year. The same four senses of reality which are mentioned in the text are shown, in that Note, to be obtained by subdividing the two main senses, from which its title is taken.

having agency is one of the deepest lines of separation between existents, which it is possible to imagine. In discovering what we have called the real conditions of consciousness in the molecules and motions which compose material objects, and which are objects of purely representational objective thoughts, we have in fact *generalised* the consciousness and the material objects with which we started, and now have before us two classes of existents, whose definitions are based upon, and start from, the conceptions of real condition and conditionate, instead of being confined, as before, to the two specific kinds of existents, from the knowledge of which we started to reach those conceptions.

Our positive knowledge, so far as it goes, compels us of course to retain Matter in the first class, and Consciousness (as an existent) in the second. But inasmuch as the definitions of the two classes are quite general, and as we know that our positive knowledge does not exhaust the reality of the universe, there is no possibility of maintaining, that nothing but what is material can be contained in the first class of existents, and nothing in the second but what belongs to the modes of consciousness already known to us. The classes as defined are exhaustive of our thought of real existence; but the positively known existents which belong to them are known not to be exhaustive of the classes to which they belong.

In short, the two classes cover and include what used to be called the *noumenal* world of "things-in-themselves," or possible unseen realities, as well as what used to be called the *phenomenal* world of matter and consciousness. I say what used to be

so called, because the old distinction, which implicitly identified the noumenal world, or "things-in-themselves," with a wholly unknowable reality, is at variance with the ultimate philosophical truth, that *esse* is *percipi*, or (what is the same thing) with the experiential fact, that consciousness consists in perception of a content, and therefore that the least and lowest meaning of the term *Being*, without which it would be meaningless, is *perceivability*. And the distinction which replaces it, and which is founded on that fact and the truth which expresses it, is a distinction, not between things as they appear and things as they really are, that is, between phenomena and noumena, but between things as they appear to imperfect knowledge and things as they would appear to perfect knowledge, supposing it attainable. For even Omniscience, which is ideally perfect knowledge, is a case of consciousness, and therefore must consist in perception of a content. The former distinction, which dominates Kant's system, imposes on us only when we adopt the distinction between Subject and Object,—in which the relation between real condition and conditionate, or between cause and effect, is really involved,—as the ultimate distinction in philosophy, and either tacitly or overtly allow to override that between subjective and objective aspects, as involved in reflective perception, which is the really ultimate philosophical distinction, inasmuch as it expresses the essential nature of consciousness or experience.

The Thing-in-itself (*Ding-an-sich*) appears as a necessary conception in philosophy, when we regard the order of existence or of genesis as the

§ 8. Reality in the fullest sense. —The Four Senses of the term.

fundamental object of research; because then we always have to stop with the idea of a Cause known only by its effects. It vanishes altogether from philosophy, when we regard the question of nature or of *whatness* as the beginning and the end of all philosophising; because then we always have an object thought of exactly corresponding to our objective thought of it, that is, an object known in the only way in which it is possible to know anything, that is, as an objective aspect, or existent, relative to our subjective consciousness. In short, all existence whatever must be conceived as phenomenal; relativity to consciousness of some sort or other being an essential part of what the very term *existence* means.

The distinction between the two classes of existents, being thus exhaustive, enables us to add a fourth and final meaning to the three which attach, as we have already seen, to the term *reality*. (See Chapter III., § 7, and Chapter VII., § 6.) Whatever existents belong to the first of the two classes now distinguished, that is, those which are real agents, are real in a sense which has not hitherto been expressly noticed. The term *reality*, or *existence*, or *thatness*, (these being practically synonymous), was found to have three different meanings, according as it was applied (1) to objects simply, its sense then being, that *esse* is *percipi*, (2) to objects as having a place in the time-stream of perception, and then meaning *existere* as opposed to *esse*, and (3) to objects thought of as having an existence independent of the circumstance of their being (or not being) perceived; abstracting, of

course, from the fact that, even in so thinking of them, we are in some sort perceiving them. We now see, that the term has a fourth meaning, namely, as applied to objects which are real conditions as well as conditionates. This is reality in the fullest sense that we can conceive; reality in the sense of *efficiency*, as well as in that of simple existence. Each of the four senses corresponds to a definite step in our analysis of experience, and each adds some special trait to those which were contained in the one before it. The first is the most general, meaning simply the objective aspect of experience in its widest sense, the name for which is *Being*. The last is the most special, meaning that which not only belongs to the objective aspect, but also accounts, or contributes to account, for the genesis and history of some other particular existent or existents, thought of as belonging to the objective aspect. The first belongs to the distinction of subjective and objective Aspects, the last to the Course of Nature, in which that distinction finds its only positively known development and exemplification.

Whenever, therefore, reality is predicated of anything, it is necessary to ask, in which of the following four classes it is thereby intended to place that of which it is predicated:—

1. Something simply in consciousness.
2. Something which has a definite place in perception, or objective thought.
3. Something which has existence independently of whether it is perceived or unperceived, thought of or not thought of, at any given time.

4. Something which has efficiency as a real condition.

These are the four heads or classes of Reality; and there are no others founded on the same principle and method of analysing experience; that is to say, these are an exhaustive classification, including under it every mode of reality which we can possibly conceive.

It should, however, be noticed in conclusion, that, although these classes differ from each other in point of the degree of fulness in the meaning of the term *Reality*, this is not a difference in the degree or intensity of the Reality common to all, as if reality were a sensible quality, capable of more or less strength. The four classes rest on four distinct meanings of the term, or kinds of reality; but all alike refer to feeling and form taken together, that is to say, to complete or empirical objects, and not to the element of feeling, nor indeed to either element as if it could be experienced alone. *Reality*, taken as common to all the four classes, means simply the *fact that* experience takes place,—a fact which is incapable of degree, that is to say, of being either less or more real than it is.

The Sense of Reality on the other hand varies in degree, as well as in kind, (1) with the mode in which our feelings are affected by it, the various modes, for instance, in which we are aware of physical force, and (2) with the clearness and vividness of the perception which we have of the persistence of particular objects or modes of force, and of the persistence of the relations between

them, or of the degree of regularity with which similar relations recur in similar circumstances. The sense of reality varies in intensity because it is a mode of the element of feeling, which varies with the constitution and circumstances of individual percipients, without any variation in the objective fact itself, that something is being perceived, which is what is meant by reality. To attribute degrees of intensity to reality can therefore only spring from confusing it with the sense of reality in individuals, from which it is severed by a difference as deep as any in experience.

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